



**Castings & Machining**



**SRINATHJI ISPAT LIMITED**



we **believe**  
in dominance  
through excellence.

## profile

Srinathji Ispat Limited is one of the leading manufacturer of Alloy Steel Castings in India. The company was established in 1989 and has embraced expertise in producing sand castings for Hydro Power, Steel, Thermal Power, Sugar, Cement, Mining and Heavy Engineering Industry Sectors.

Located in the National Capital Region of India, it is well connected with all modes of transportation and is build over 250,000 sq. ft. plot with a covered area of more than 120,000 sq.ft.

Equipped in all area of operation with committed and well qualified personnel, we strive to meet our customers' demands with quick development, stringent quality checks and faster deliveries, cost effectively. The company is manufacturing 3000 MTPA of steel castings, 1200 MTPA of Forging Ingots and undertakes intricate jobs for machining service.

SIL, is associated with Maithan Group having an turnover of 450 million USD, producing 400,000 MTPA Heavy Sections, 200,000 MTPA Ferro Alloys, 100,000 MTPA Sponge Iron and is Third Largest Refractory Manufacturer of India. For more details please visit [www.maithangroup.com](http://www.maithangroup.com).



Support Roller

## group profile

### Srinathji Motors (P) Limited

A renowned dealer of TATA Motors Limited, India's largest automobile manufacturer for passenger and commercial vehicles. Based at Sahibabad, it is selling around 2,400 cars and servicing 10,000 cars per annum. It is employing 110 people and within a short span has become the No. 1 Dealer in its area.

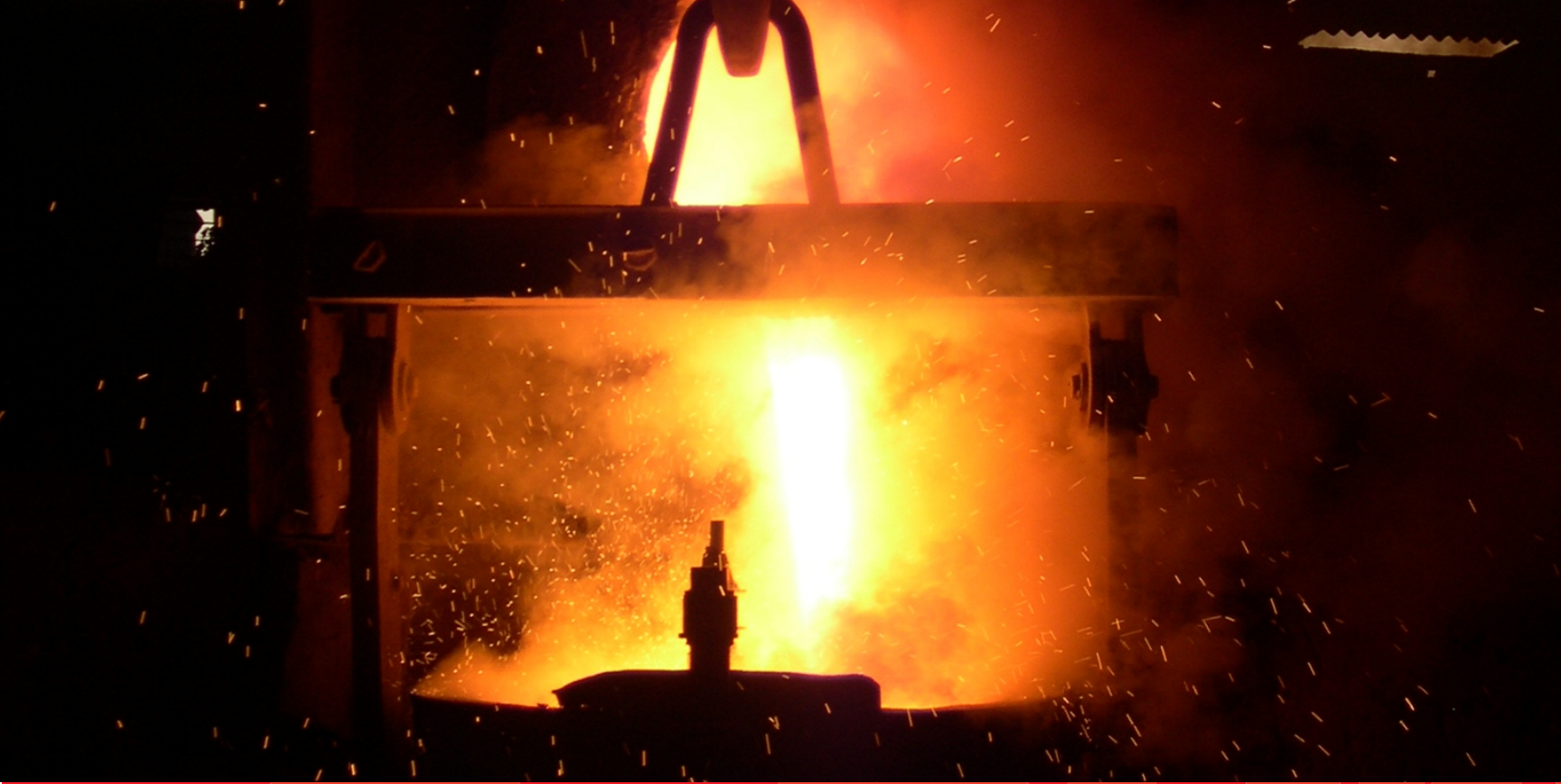
### Srinathji Ispat & Power Limited

A new incorporated company trading around 5000 MT per year of Ferro Silicon, Ferro Manganese, Silico-Manganese, Ferro Chrome, Ferro Molybdenum, Sponge Iron, Chromite sand, Zircon sand, Graphite Electrodes and other materials required for steel production from domestic and international sources.



Mold for Chain Sprocket





## product & services

### Castings

Range: 50 kgs to 6000 kgs single piece.

Size: Ø 6000 mm (Max), 5000mm x 3000 mm x 2000 mm (Max)

Grades: All grades confirming to IS, DIN, BS, ASTM/AISI, JIS, GAST or else specified by the customer for Carbon Steel, Low Alloy, SG Iron and High Manganese Steel.

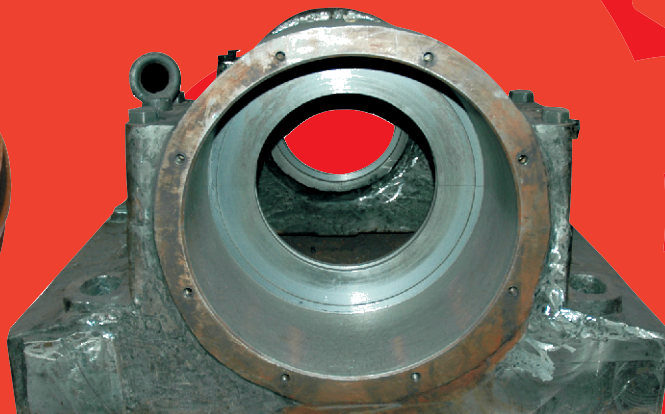
Supply Condition: Black, Proof Machined or Finished Machined

### Ingots

Forging quality ingots primarily used for open die forging in various grades as per national and international standards mainly of carbon steel, carbon manganese steel, stainless steel and other high alloys.



Idler Wheel



Combined Bearing Housing

Hinge for  
200 MT Laddle







we **claim**  
to produce  
world class castings.

## facility

### Melting

The company is equipped with 2 ABB Induction Furnaces of 4 MT and 1 GEC 500 kgs Induction



Furnace with total liquid metal capacity of 8.5 MT with bottom pouring and lip pouring ladles in various capacities and EOT cranes of 5,10,15 & 25 MT. The melting facility is backed with captive power generation of 2.5 Mega Watt for continuous production.

### Pattern Making

Due to jobbing nature of our foundry, we generally use wooden patterns that are made in our in-house



Spherical Roller  
Bearing Housing

pattern shop. For castings in larger quantities we prefer to use aluminum patterns, which are outsourced from professional pattern makers.

### Molding

We use silica sand and CO2 process for molding and



are equipped with semi automatic sand preparation plant for mulling, mixing, aerating of the sand and reclamation. Steel fabricated molding boxes are available in large quantities and various sizes. Molding section is equipped with Pneumatic Rammer, Air Compressors, Casting Trolleys, Sand Dryer and other machines required for efficient production.

### Heat Treatment

The Company has specially designed furnaces for improving Physical properties and to achieve the Ultrasonic parameters of castings by Homogenization, Annealing, Normalization,





Hardening and Stress Relieving. One of the Furnace



also has Quenching facility with fork lifting arrangement to complete quenching process

without much loss in temperature. All the furnace have computerized Data loggers for cycle charts and maintain temperature variation between  $\pm 10^{\circ}\text{C}$ .



Quenching in Process

## Fettling

It is well equipped with Swing grinder, Pneumatic



chippers, Portable grinder, Flexible shaft grinder, Pencil grinder, Angle grinder and a shot blasting machine to provide surface finish as per the customer specifications.

## Quality Assurance

The Company provides Physical and Chemical test report on each melting. During the heat treatment

temperature is recorded through graph chart for each batch of casting. Relevant Test Certificates along with self-inspection report are also provided to the



Spectromaxx



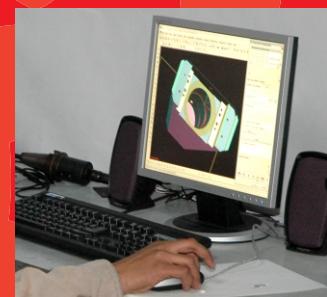
customers. All materials are thoroughly inspected prior to dispatch in three stages to maintain the desired quality. The Company as part of its policy also entertains

third party inspections as per customer's advice. Further the Inspection Department ensures proper packing of materials for safety and security prior to dispatch. The Company has ISO 9001-2000 certification for its quality management/business process.



## Research & Development

The Company has a team of employees who work to achieve optimum design taking into consideration the product geometry, thermo-physical, chemical and mechanical requirements. R&D department equipped with all required equipments for detailed designing, prototyping, 3D modeling, stimulation, Spectrometer, UT, MPI, Hardness, Microscope and Impact testing machines with fully stocked chemical laboratory for wet analysis.







Richard VTL Ø4350 (UK)

## Machining

Machine shop was commissioned as a vertical integration step to the company and to provide customers faster deliveries. It is equipped with 85mm & 100mm (Table Type) and 130mm (Floor Type) spindle Diameter Horizontal Borers,



Union BFT 100/3 (Germany)

Ø1000, Ø1200, Ø1450, Ø1700, Ø4300 Table Diameter Vertical Turret lathes, 3300mm x 2000mm x 1500mm Plano Miller, 1000mm x 4000mm Planning machine, Shaping, Slotting and Drilling machines to finish machine the castings as per customer requirement within micron tolerance. It huge inventory of calibrated measuring instrument like Dial Gauges, Micro-meters, Vernier Calipers, Depth Gauge, Height Gauges, Marking Tables, Inside/outside Calipers, Surface Comparators, etc. for precise inspections. In mere 2 years it has been approved by esteemed organizations like Bharat Heavy Electrical Limited, Mirco-matic Grinding, Humbolt Wedag, Bharat Electronics Limited etc. for machining services.



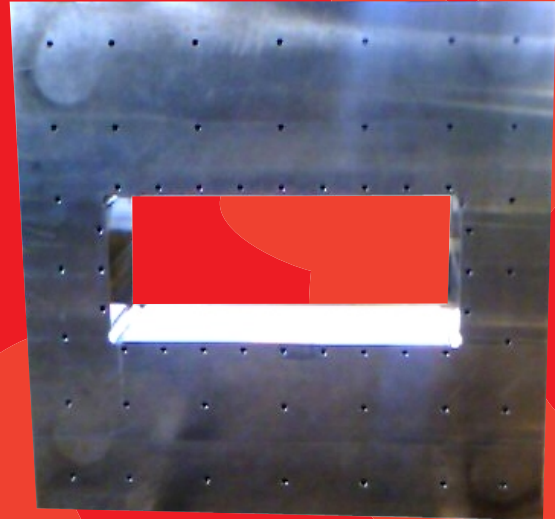
Defum VTL Ø1250 (Poland)





we **achieve**  
perfection in  
all spheres.

## major application industries



**Mother Mold for Press**

### **Hydro & Thermal Power**

Turbine Casing, Dome Casing, Runner Casing, Outer Casing, End Covers, Liners, Crusher Hammers, Granulators Rings, etc.

### **Sugar**

Crown Pinions, Trash Plates, Mill Stands, Bearing Housings, Plumber Blocks, Sprockets, Hubs, Side Cap, Top Cap, Turn Beams and Planetary Gear Box castings, etc.

### **Steel**

Work Roll Chocks, Backup Roll Chocks, Sleeve/Segments for Coilers and re-coilers, Guides Passes, Bottom End Plates, Rest Bars, Combined Bearing Housings, Supports Rollers, Mother Moulds, Tri-unions Blocks, Hinge Plate, Lybrinth Ring, Link Assy, etc.

### **Cement**

Castings like Mill Head, Wear Resistant Liner, Girth Gears, Jaw Plates, Rollers, Bush Bearings, Flywheels, End Rings, etc.

### **Mining**

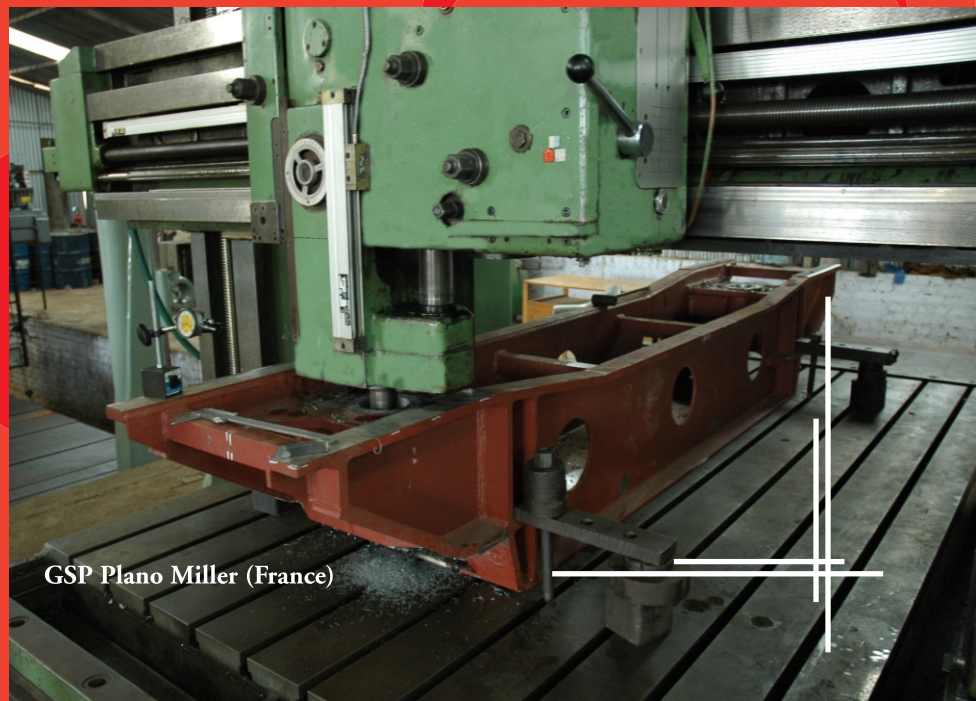
Scraper Blades, Bowl & Mantle, Rings, Drag Line Teeth and Shovel Teeth, etc.

### **Heavy Engineering**

Idler wheels for Earth Moving equipments, Eccentric Gears, Cylinders, Bolsters Plates, Helical Gears, Connecting Rods, Worm Housings, Pump casings, Quills, etc.

SIL supplies these castings to all major OEM's and End Consumers directly for more than a decade now like Tata Steel Limited, Essar Steel Limited, Indian Sugar and General Engineering Company, Walchandnagar Industries, Morgan Construction Company, HPP Energy, Uttam Industries Limited. The Company has been granted status of Self-inspection credential by most of the customers and is a strategic partner of their supply chain.

SIL has created an outstanding reputation in the casting industry by always striving to find innovative ways to benefit our customers. With our state of art technology, superior craftsmanship and our dedication to providing our customers with a high quality product, we build strong relationship.



**GSP Plano Miller (France)**



we **work**  
to make  
the things happen.

## ductile iron foundry

Srinathji Ispat, An ISO 9000 accreditation Steel Foundry and O.E. supplier of Castings to General Engineering Industries like Sugar, Earth Moving Equipments, Cement and Steel Plant Equipments. SIL is now setting up a Ductile Iron Foundry, within its premises at Ghaziabad to cater to the automobile, Railways, Construction machinaries and power sectors.

## facility

### Molding Section

The molding section will have ARPA - 900 molding machine of George Fishers DISA make as well as hand molding facility. The machine molding section will be supported by a mechanised sand conditioning sand handling plant also from the George Fishers DISA. The hand molding section will work with phenolic resin sand / CO<sub>2</sub> sand. The maximum box size in the machine molding section will be 1000 x 800 x 350 mm size. In the hand molding section, the box size is not a limitation, but the largest size casting will be 700 Kg. weight.



### Melting Shop

The melting shop will have a medium frequency furnace of 1000 kg capacity. Apart from carbon equivalent meter and immersion pyrometer for in process control, chemical analysis will be done by spectrometer. Metallurgical control will be supported by metallographic laboratory



### Fettling Section

Fettling Section has Shot Blasting Machines, Band Saws, Abrasive Saw Cutting, Grinding & Pneumatic Cleaning/ Finishing tools to give clean casting with required degree of surface finish.







production  
starting from  
April 2008

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## products

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## Quality

Laboratory is well equipped with Spectrometer and has complete facilities of Full Dry & Wet Lab, Sand Testing, Ultrasonic Test, Radiography & Universal Testing Machine for Physical Tests. The various stages of manufacturing will be closely monitored and controlled in order to produce quality castings. The in process inspection will include Sand testing, mould hardness testing, Liquid Metal analysis and final product validation. In order to produce castings of good quality, the quality of raw materials is important. At SIL, great emphasis will be laid on the quality of not only the finished product, but also all incoming materials that go into the manufacture of a product as well.





# STEEL CASTINGS

we **believe**  
in dominance  
through excellence.

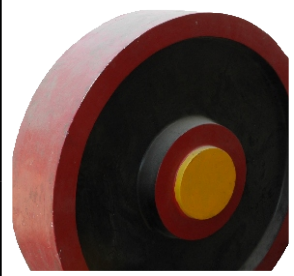
we **claim**  
to produce  
world class castings.

we **achieve**  
perfection in  
all spheres.

**Melting**



**Pattern Making**



**Mould Making**



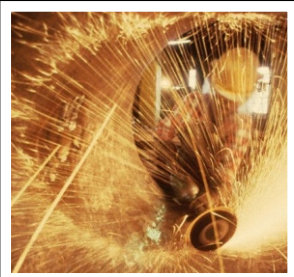
**Pouring**



**Heat Treatment**



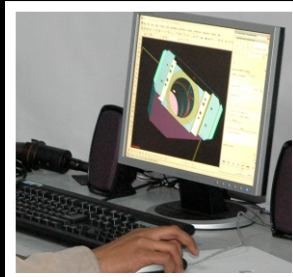
**Fetling**



**Spectrograph**



**R&D**



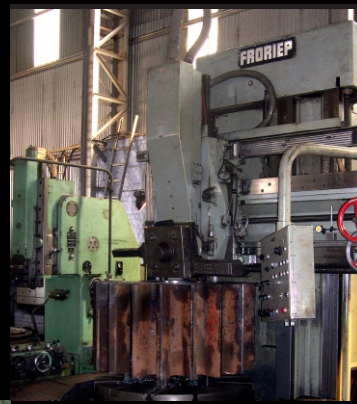
**Machining**



**Finishing**

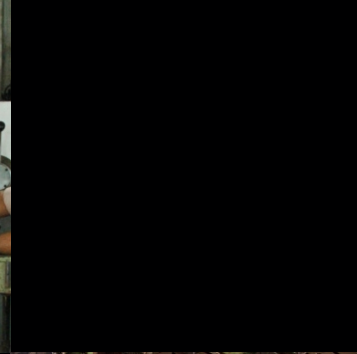
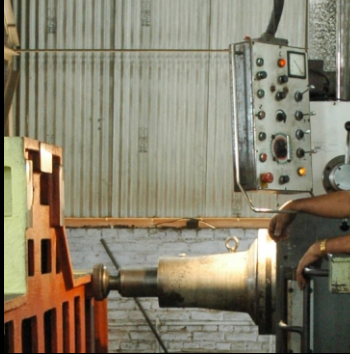






## Future Plans

SIL is now developing valve body castings within the weight range of 1MT to 3.5 MT and acquiring the requisite infrastructure like facility of Hydraulic Pressure testing and aims to start mass production soon.



Considering the boom in the Automobile Industry in India, the Company envisages potential in castings for auto sector and is keen to set up fully automated foundry with the latest technology for producing best quality castings.



## Srinathji Ispat Limited

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