



## **COMPANY PROFILE**

### **Introduction**

Thomas Foundry is a privately owned South African company that opened its doors as East Rand Engineering in 1905. It relocated to its current site in Smits Street Germiston in 1924. Thomas Foundry started trading in 1971 after Brian Thomas bought and renamed the operation. The company has earned a fine reputation as a dependable supplier of quality ferrous castings. The overview that follows briefly describes Thomas Foundry's capabilities and services.

### **The Company**

Thomas Foundry is a specialist Iron and Steel Foundry producing quality castings for original equipment manufactures and end users in a range of over 70 international material specifications. The Company maintains a leading role in the South African Foundry Industry through its keen attention to customer's needs of quality, price and delivery. This commitment to quality has enabled the company to export its products worldwide.

### **Capabilities**

Manufacturing facilities at Thomas Foundry include an Air Set Resin Sand Foundry for jobbing and short runs and a Greensand Foundry for production runs. The Foundry is well equipped to perform the ancillary functions of patternmaking, melting, fettling, welding, heat treatment, chemical analysis, mechanical and non destructive testing. Thomas Foundry produces a variety of high integrity products ranging from 10 Kg up to 18 Tons net weight in Steel and up to 25 tons net weight in Iron. Products may be ordered and supplied in As Cast, Proof Machined or Final Machined conditions.

<b>Jobbing Plant – Air Set Resin Sand Foundry</b>		
<b>Ferrous Metal Grades</b>		<b>Individual Net Cast Weight</b>
<b>Steels</b>	Carbon	20 Kg - 18 000 Kg
	Alloy	20 Kg - 18 000 Kg
	Manganese	20 Kg - 14 000 Kg
	Stainless	20 Kg - 10 000 Kg
<b>Irons</b>	Grey	10 Kg - 25 000 Kg
	Sg.	10 Kg - 25 000 Kg
	High Chrome Iron	10 Kg - 15 000 Kg
<b>Production Plant – Green Sand Foundry</b>		
<b>Ferrous Metal Grades</b>		<b>Individual Net Cast Weight</b>
<b>Steels</b>	Carbon	10 Kg – 250 Kg
	Alloy	10 Kg – 250 Kg
	Manganese	10 Kg – 250 Kg
<b>Irons</b>	Grey	10 Kg – 250 Kg
	Sg.	10 Kg – 250 Kg
	High Chrome	10 Kg – 250 Kg

All the above material grades are made to international standards e.g. ASTM, BS, DIN, EN, SABS etc.

## **Quality Control**

Thomas Foundry is ISO 9001:2008 accredited. The company is committed to the maintenance of a Quality Management System that both complies with legislated and regulatory requirements as well as best practice within our industry.

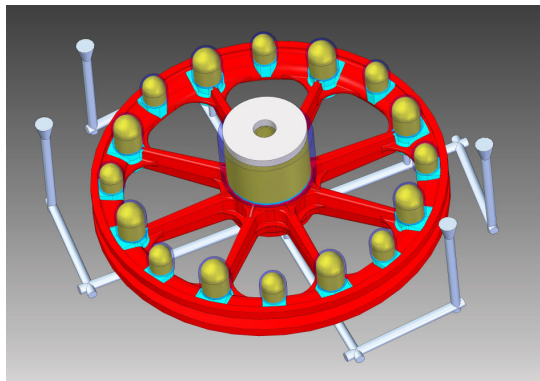
## **Melting Facilities**

Induction melting furnaces of various capacities supply a range of alloys to meet the customers order requirements. During the casting process test pieces are cast for metallographic examination and physical testing. Metal composition is strictly controlled and certified to international acceptance standards.



## **Method Design**

Complex shapes and large castings go through a casting simulation using a computer-aided package to predict where shrinkage cavities and associated defects may arise in the component. Methods are designed in house through the use of 3-D solid modeling and thermal analysis to ensure the metal is distributed quickly and evenly and is adequately fed during solidification so as to minimize internal defects. Thomas Foundry's service offering includes technical input and advice of skilled foundry personnel at the design stage. Through its membership of Castings Technology International (CTI) in the UK, Thomas Foundry has access to the latest foundry technology.



## **Process Control**

Manufacturing processes are reviewed at technical meetings prior to commencing with manufacture. Approved quality control plans are issued with each order detailing the manufacturing process. All components are identified by a unique serial number that is fully traceable from the manufacturing records.

## **Lead Times**

Lead times vary according to the item been manufactured and foundry loading at the time of order placement.

## **Range of Experience**

Thomas Foundry's expertise covers a full range of capital equipment and consumable items used by the mining, smelting, earthmoving, cement, brickmaking, chemical, petro-chemical, water, power generation, transport, sugar, paper and general engineering industries.

# Typical Products

## Mining Equipment:

Mill Ends, Trunnions, Apron Feeder Pans, Flights, Grizzly Bars, Top and Bottom Shells, Front and Back Heads, Inlet Housings, Coal Feeders, Hoppers, Discharge Plates, Arm Guards, Jaws, Main Frames, Concave Liners, Mill Liners, BucketLips, Adapters, Sheaves, Tumblers, Rope Sockets, Large Gears, Drag Line Chains, Crawler Links, Drag Clevises, etc.



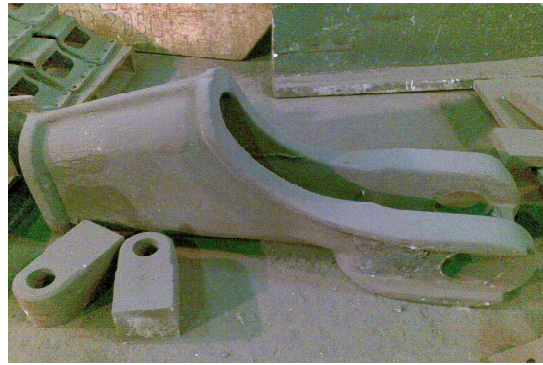
Drag Clevis



Grizzly Bars



Rope Socket Wedge



Rope Socket



Apron Feeder Pan



Sheave Wheel

**Power Generation:**

Hollow Grinding Balls, Throat Liners, Hubs, Blades, Levers, Tyres, Rings, Trays, Furnace Rolls, Hearths, etc.



**Hollow Grinding Balls**



**Scrolls**



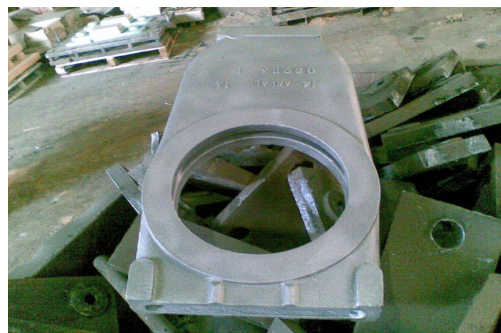
**Table Matt Segments**

**Chemical/Fluid Transport:**

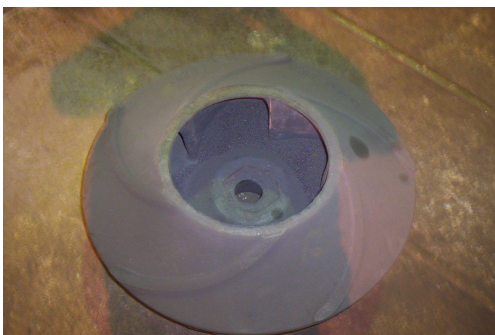
Gates, Feeds, Spherical and Butterfly Valves, Vacuum Pumps, Pump Casings, Rotors, Impellers, Pressure Rings, Pipe Bends, Fire Bars, Grates, etc.



**Boiler Castings**



**Valve Body**



**Impellers**

**Brick/Cement/Sugar Mill Equipment:**

Riding Rings, Trunnion Ends, Mill Liners, Grate Plates, Bearer Bars, Hammers, Augers, Paddles, Barrel Liners, Diaphragms, Wear Plates, Trunnion Rollers, Links, Palms, Diffuser Shafts, etc.



**Liners**



**Smelters:**

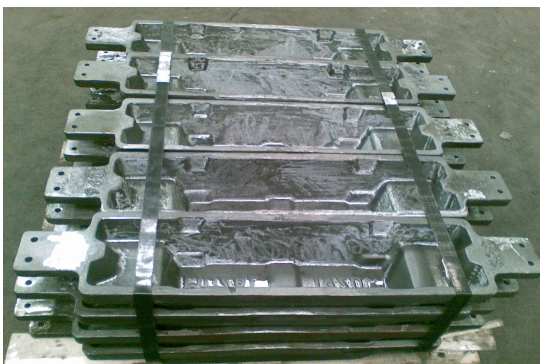
Slag Ladles, Bollards, Chill Moulds, Sow Moulds, Launderers, Furnace Doors, Trays, Furnace Rolls, Hearths, Ingot Moulds, Crust Breaker Chisels, etc.



**Slag Ladles**



**Ingot Moulds**

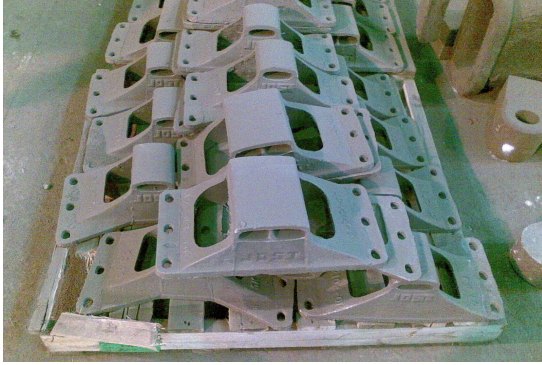


**Ingot Moulds**



**Transport: Automotive/Railway Equipment:**

Extruder parts, Pedestals, Hubs, Tine Arms, Spades, Links, Fifth Wheels, Press Dies, etc.



**Pedestals**



**Track Pads**



**Fifth Wheels**



**General Engineering:**

Large and Small Gears, Pinions, Tool Parts, Cylinders, Worm and Gear Housings, Crane Wheels, Sheaves, Bearing Housings, Hubs, Horizontal Links, Rack Segments, Walking Frames, Riding Rings, Yokes, etc.



**Crusher Segments**



**Socket**



**Roller**



## **Thomas Foundry's Goal**

Thomas Foundry's goal is to develop a sustainable business that creates real wealth for both its shareowners and other stakeholders by effectively servicing the needs of its customers. We aim to provide agreed levels of Quality and Service to our Customers by appreciating and understanding their expectations and to continually focus upon the improvement of both our manufacturing techniques and development of our workforce.

*Leaders in Metallurgical Engineering*

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