





# Mfg.: S.G. Iron Casting & Grey Iron Casting As Per IS & ASTM Standards

Automobile
Power Transmission
Agriculture Equipment
Defense
Earthmoving
Railways
Machine Tools
Wind energy
Valves industry
Oil & Petrochemicals

www.rudrakshtechnocast.com



## About Us

#### Profile

Rudraksh Technocast Pvt. Ltd. Is one of the premier foundries in India, located in Rajkot-Gujarat, producing high quality S.G.Iron (NODULAR Cast Iron OR DUCTILE Iron) casting for customer around the world. We are equipped with State-of-Art Technology, Melting shop, Molding shop, Core shop, Fettling & Grinding facility and Chemical plus Physical laboratory to cast and test components with stringent metallurgical and quality requirements. We are engage in S.G.I. casting production business since 2005 and it has motivated us to extend our foundry business skills and expertise in S.G. Iron.

Our annual production capacity is 1200 MT. We have a capacity to cast a single component weight range from 1 Lbs (0.454 Kg) to 660 Lbs (300 Kg).

#### Quality Policy

We are committed to achieve costumer satisfaction by supplying Quality product to meet customer requirement  $\mathcal{E}$  do continual improvement in all type of recourse  $\mathcal{E}$  related facility of casting inspection and sand testing.

This policy describes the methodology for establishment, implementation and maintenance of a quality management system and continually its effectiveness in accordance with the requirements if international standard ISO 9001:2008.

### **Quality Certification**



We serve a quality management system in a line with ISO 9001: 2008 standard for the following scope of Manufacture and supply S.G. Iron & Castiron Castings.

#### **GPCB** CERTIFICATION





#### About Ductile Iron

Nodular iron or Spherical. We take away as much S as possible and innoculate with a Mq alloy. This causes graphite to form in spherical clumps instead of flakes. This has a tremendous effect on mechanical properties.

F Yield: 276 MPA, 40 Ksi Ultimate: 414 MPA, 60 Ksi

Ductile: 18% EL

Please note: Elements such as copper or tin may be added to increase tensile and yield strength while simultaneously reducing ductility. Improved corrosion resistance can be achieved by replacing 15% to 30% of the iron in the alloy with varying amounts of nickel, copper, or chromium

This is very important - has steel like properties in a casting

## Types of Sand Process

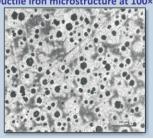
▼ MOLASSE MOLDING PROCESS

GREEN SAND PROCESS









**▼ NO BACK PROCESS** 

**▼ CO2 PROCESS** 



## TESTING FACILITIES

- ▶ **Spectrometer**: High Performance Metals Analysis With Latest Technology.
- ▶ Computerised Universal Testing Machine 40 KN Capacity With Electronic Extensometer.
- ▶ Microscope : Inverted Metallurgical Microscope With Image Analyzer & Analyze Stream Software.
- ► Hardness Testing : Optical Brinell & Rockwell Hardness Tester.
- ▶ C. Meter : Carbon Silicon Analyzer Tester for molten metal.
- ➤ Sand Testing Equipments : All Type of Electrical, Mechanical & Digital Testing.

  (Permeability Compatibity Universal Strength Hardness Tensile)
- Other Testing Facility: Ultrasonic Radiography Magnetic Particle Eddy Current Hydro Test. (This Facility Are Carried Out at NABL Approved Third Party Laboratory.)





## **Machinery**

- **☞** Induction Furnace (Electro Therm)
- F Hand Molding Press:

- **☞** Intensive Mixer:
- Hoist:
- Jolter Molding Machine:
- Manual Mix-Muller:
  ▼ INDUCTION FURNACE





▼ COLD BOX CORE SHOOTER



### **PRODUCTS MANUFACTURED**

All together we had developed about 300 type of Components. Which constitute...

- Transmission Components.
- Engine Components.
- Valves Components.
- Universal Joint / Propeller Assembly Components.
- Earth Moving Components.
- Machine Tools and Electrical Components.
- Flanges , Gears and Engine blocks.
- Axle Components.
- General Engineering components.



## **Products**

#### Automobile



#### Agriculture



## **General Engineering**









#### **Power Transmission**









#### **Chemical & Textile**











## SG Iron Specification

- ISO 1083,
- F AMERICAN ASTM A536,
- EUROPEAN EN 1563,
- **GERMAN DIN 1693**

Material Designation with ISO	Tensile Strength (min)N/mm2	0.2% Proof Stress (min) N/mm2	Elongation (min)%	Predominant Structure
350-22-LT	350	220	22	Ferrite
350-22-RT	350	220	22	Ferrite
350-22	350	220	22	Ferrite
400-18-LT	400	240	18	Ferrite
400-18-RT	400	250	18	Ferrite
400-18	400	250	18	Ferrite
400-15	400	250	15	Ferrite
400-10	450	310	10	Ferrite
500-7	500	320	7	Ferrite - Pearlite
600-3	600	370	3	Pearlite - Ferrite
700-2	700	420	2	Pearlite
800-2	800	480	2	Pearlite
900-2	900	600	2	Pearlite or Tempered Martensite







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