

### About us

**Saudi Cast** is a modern iron and steel foundry located in Riyadh, Saudi Arabia. It was established in 1972. The production capacity is 300 tons per month of gray iron, ductile iron, copper alloys and steel castings.



Saudi Cast employs 250 professionals from fifteen different nationalities. Castings are supplied to local and regional markets, as well as to markets in Europe, and North America. The company is associated with a number of research and technology institutions around the world, mainly World Foundry Organization, the Casting Technology Institute of Sheffield UK, and the Foundry Association of Saudi Arabia. Saudi Cast is an ISO 9001:2015 company,

We produce a wide range of products under Outdoor Drainage, Engineering casting, and Indoor Drainage. **"FloDrain" is the brand name for Indoor Drainage range of our products.**

### Our Vision

To develop our company to be a world-class foundry, that will set the benchmark in innovation, **research and employee satisfaction. We will strive to be the region's top** provider of quality castings in a wide range of alloys and grades.

### Our Mission

Produce high quality, marketable castings that will satisfy current and future customer demands through a highly trained work force whilst maintaining commitment to the community, the environment and the well-being of our employees.

## 1.0 Range of Alloys

### 1.1 Ferrous Metals

#### 1.1.1 Ductile Iron

Spherical Graphite iron (SG iron) with ferritic, pearlitic or mixed matrix structure in accordance with the following standards and grades:



BS EN 1563: 1997 \*

Grades:

EN-GJS-400-18 EN-GJS-400-15

EN-GJS-450-10 EN-GJS-500-7

EN-GJS-600-3 EN-GJS-700-2

BS EN 1563: 1997 \*

Grades:

EN-GJS-400-18 EN-GJS-400-15

EN-GJS-450-10 EN-GJS-500-7

EN-GJS-600-3 EN-GJS-700-2

\* This standard has replaced BS 2789 of 1985 and DIN 1693 of 1973

#### 1.1.2 Gray Iron:

Flake graphite iron to the following standards and grades:



BS EN 1561: 1997 \*

Grades:

EN-GJL-150 EN-GJL-200

EN-GJL-250 EN-GJL-300

ASTM A48: 19843

Grades:

25A-C 30A-C 35A-C

40A-C 45A-C

\* This standard has replaced BS 2789 of 1985 and DIN 1693 of 1973

### 1.2 Non-ferrous Metals

#### 1.2.1 Copper Base Alloys:

#### 1.2.2 Aluminum Base:

(Copper Silicon Alloys)

Grades:- LM4 LM6 LM24



## 2.0 Melting Equipment

2.1 Metals are melted and treated in medium frequency induction furnaces.

- Dual track and Melt Manager Control.



## 2.2 Metal Quality Control

- 2.2.1 **Thermal analysis:** For the determination of chemical composition in the early stage of melting.
- 2.2.2 **Spectrographic analysis:** Prior to pouring, the exact chemistry of the metal is determined and adjusted.
- 2.2.3 **Metallographic examination:** An important phase in metal testing which determines the microstructure of the cast sample.
- 2.2.4 **Physical properties analysis:** Tensile, elongation, and hardness testing.
- 2.2.5 **Non-Destructive Testing:** Ultra-sonic Testing, Dye-Penetration and Magnetic Particle Inspection.

## 3.0 Mold and Core Production

### 3.1 Molding Process:

#### Green Sand

- A. Fully automated Flaskless High pressure molding line (SINTO FBOIV) with up to 80 moulds per hour capacity for or castings weights up to 50Kg. With sizes available – in centimeters: 70\*60\*50 / 250



#### Self-Set (No-Bake): Automatic Furan moulding line.

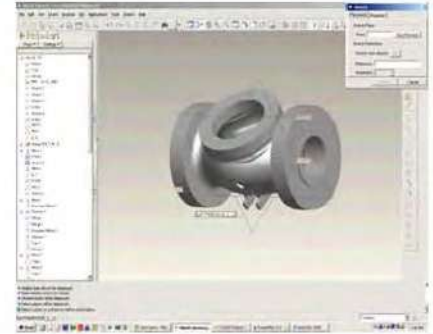
- B. For bigger castings, up to 1 tone of casting weight. It is a versatile system (boxless) and guarantees superb surface finish, and close dimensional tolerances.





## 4.0 Design & Modelling:

- A. **CAD / CAM Applications using:**
  - Pro Engineer ( Pro E) - Power Mill
- B. **Casting Simulation Softwares**
  - SolidCast - FlowCast - OptiCast
- C. **Reverse Engineering**



## 5.0 Pattern Making:

In-house pattern shop fully equipped to design and produce tooling equipment (patterns) in the following materials: Wood, Aluminum, resin and composite.

A state-of-the-art 3-axis router with advanced modeling software allows



## 6.0 Heat Treatment

Complete facilities are available to carry out annealing, normalizing, and stress relieving.



## 7.0 Machining:

In-house machining center using modern CNC equipment to provide fully machined castings according to customer requirement.



HMC Machiene



VMC Machiene



Horizontal Lathe