

A Report on an Industrial Visit to

**Jay Metal Tech  
G.I.D.C. – Sachin , Surat**

*Organized by*

Training and Placement Cell

**Department of Mechanical/ Automobile  
Engineering**

**B-Tech. Automobile(3<sup>rd</sup> Semester)**

**Date of Visit: 30<sup>th</sup> & 31<sup>st</sup> August,2017**

Dr. Chinmay Desai  
HOD – Mech/Auto Dept.

Dr. N. C. Shah  
Director– CGPIT



**ChhotubhaiGopalbhai Institute of Technology,  
Uka Tarsadia University, Bardoli.**

## Schedule of Visit:

Time		Location
To	From	
11:30 a.m.	-	Surat and CGPIT (Bardoli)
12:30 p.m.	-	Reached at Jay Metal Tech, Sachin GIDC, Surat
1: 00 p.m.	4: 00 p.m.	Visit of Different Units of Jay Metal Tech
4 :00 p.m.	.	Left from Jay Metal Tech
05:00p.m.		Surat and CGPIT (Bardoli)

**No. of students visited: 99**

Date	Branch and Sem.	Faculty
30/08/2017	3 <sup>rd</sup> Auto- A	1. Prof. Hareesh Ghoniya 2. Prof. Krishna Patel 3. Prof. Bhrugesh Radadiya
31/08/2017	3 <sup>rd</sup> Auto-B	1. Prof. Hareesh Ghoniya 2. Prof. Krishna Patel 3. Prof. Darshan Shah

*Special thanks to Mr. Pradip Wakawala Sir for giving permission of industrial visit.*

## Jay Metal Tech:

Established in the year 2001, we, Jay Metal Tech, are ISO 9001 certified organization engaged in manufacturing and supplying Industrial Valves and Castings. Our comprehensive range includes products like Propeller Shaft Casting, Pump Casting, Railway Pin Insulator and Sluice Valve. We also offer a wide range of Butterfly Valve, Check Valve, Clutch Pressure Plate and Propeller Shaft Casting. Our range is manufactured using high grade material like stainless steel, carbon & alloy steel, cast iron, ductile (S.G.) iron, non ferrous metal and others.

Our value for money range is manufactured at our state-of-the-art manufacturing unit using sophisticated machines. We specialize in manufacturing ductile iron and gray iron casting in weight ranging from 300 grams to 5000 kilograms. Our range is manufactured using heat treatment, surface treatment and machining process, which makes it ready to assemble. The Power Grid Corporation Of India – PGCIL has approved us as the supplier of SG Iron castings to various insulators manufacturing industries. It is testimonial to the high standards castings manufactured by us. We are backed by a team of after sales personnel, which maintains healthy business relations with our clients, enabling us to understand their specific requirements. Owing to all these factors, we are able to garner clients all over India.

Under the able guidance of our mentor, Mr. Jayesh Wankawala, we are able to offer our valuable clients, a range that is appreciated for its quality, durability and longer service life. He has assisted our team in maintaining industry standards and promoting our range throughout India.

The vision of JMT Castings is to put up global quality standards into its castings, always keeping in view total customer satisfaction and continuous improvement as the core of its activities, striving restlessly.

JMT will provide quality assured, cost effective and timely delivered, ferrous components, meeting small to medium volume requirements of customers, while striving to be the most environmental friendly foundry.

*Mr. Jenish Patel was guided for understanding of various processes like core making, molding, sand preparation, heat treatment, machining and other machinery established by themselves.*

Jay Metal Tech was concern with Casting. Their main focus on the global quality standards and customer satisfaction.

### **Melting:**

- Induction Furnaces - 2 Panels (Dual as well as Mono Track) with 4 Crucibles
- Melting capacity 40 tons per day liquid metal aggregating 10,000 Tons Castings per annum
- Gang of treatment & pouring ladles for maximum size upto 5 tons per single piece

### **Sand Processing:**

- Green Sand conditioning plants with a capacity of 300 M. T. of processed molding sand per day
- Fluidized bed & rotary drum type sand cooling system equipped with pollution control equipment
- Silicate Sand mixtures with Auto Binder addition Pumps with sand attrition & reclamation plant equipped with pollution control equipment

## **Molding:**

- Molding line equipped with ARPA 450 & ARPA 300 equivalent simultaneous jolt squeeze molding machines
- Molding Capacity of 3000 per day, supported by hydraulically operated mold handling system
- Hand molding facility up to 3.0 \* 3.0 meters Box size by silicate and chemically bonded sand process

## **Core Making:**

- Vertical & Horizontal parting shell core shooter machines
- Sand mixtures with Auto Binder addition Pumps for CO2 & Single part no-bake cores

## **Heat Treatment:**

- Oil fired bell type furnace of 2 tons per batch capacity
- With auto temperature controller
- With 3 pen graph plotter suitable for stress relieving, annealing, normalizing, tempering, heat treatment process

## **Warehousing & Packaging:**

A spacious warehouse constitutes our infrastructure facility, which ensures proper safety of our range from factors like theft, fire, rain and others. Our warehouse is segregated into different parts to make sure the finished products are stored at a specific location. This saves time for identifying products before transportation or shipment. We have hired experts, who maintain records of the incoming and outgoing products. Moreover, proper documentation of the all the products is also conducted.

We also have a packaging facility for proper packaging of our range in quality material. This protects our range from the damages caused during the loading, unloading and others. Moreover, we label the product with its name and other specifications.

The Following quality control facilities are available in Jay Metal Tech.

1. Chemical Analysis
2. Temperature analysis

3. Physical analysis
4. Micro structure analysis
5. Dimensional analysis
6. Sand analysis

