

## Ambica Steels gearing to be among the top 3 Indian stainless steel firms

**H**eadquartered in New Delhi, Ambica Steels is India's largest fully integrated specialty stainless steel long products producer with three production units located in Uttar Pradesh state, around the border of New Delhi.

Ambica Steels is equipped with all stainless steel manufacturing facilities:

- Steel Melt Shop
- Refining through AOD Convertor & the Ladle Refining Furnace (LRF)
- Continuous Billet Casting (fitted with EMS) and Ingot Casting
- Hot Rolling Mills
- Heat Treatment facilities
- Cold Finishing of Bars, Angles & Flats

### What Ambica produces

The company manufactures high quality semi-finished and cold-finished stainless-steel products

and is a specialist for producing complex stainless steel grades at a very economical price. A wide majority of customers worldwide choose Ambica Steels as a preferred supplier for commercial Stainless Steel Long products as well as for special Precision Bars.

The company specializes in Cold Finished Products and Hot Finished Products. The cold finished products include Bright Round Bars, Hexagonal & Square Bars, Flat Bars and Precision Round Bars. Cold worked Precision Bars is a premium and super finished product processed using ultra-efficient combined lines and state of the art equipment. The quality assurance consists of ultrasonic inspection and Eddy current testing.

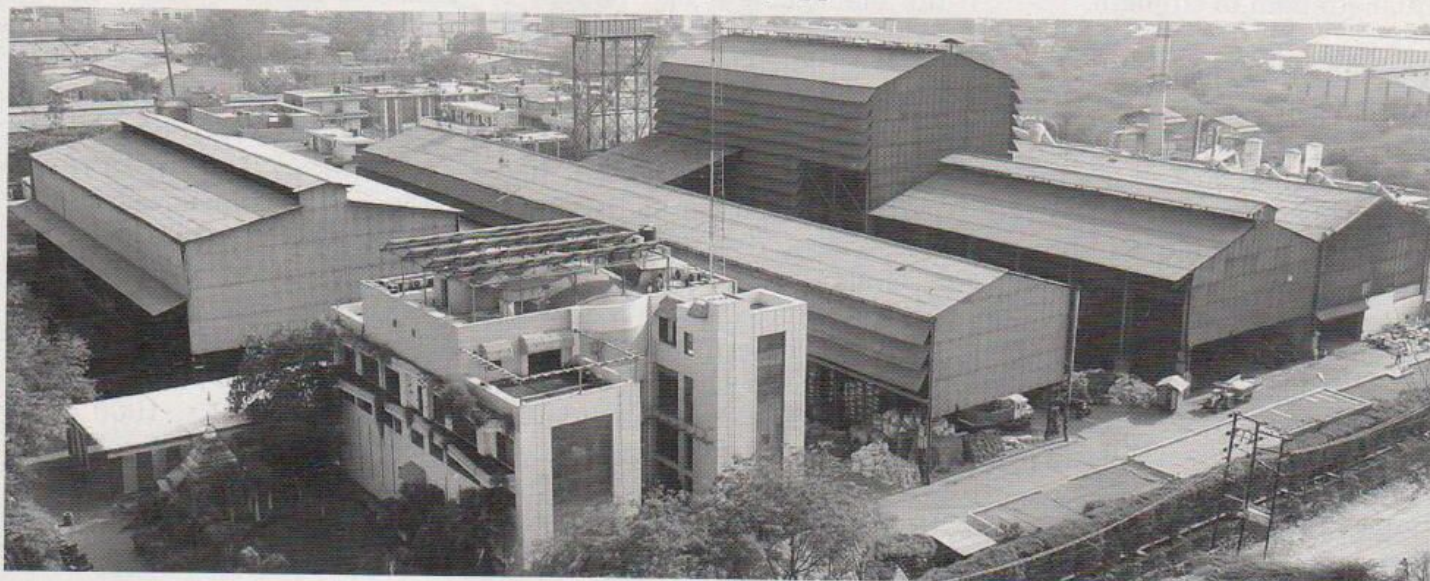
In addition, Ambica is the largest producer of Duplex Stainless Steel Long Products in India. The produced steel is used in wide variety of high quality applications

such as bridges, pressure vessels, heat exchangers, water heaters, seawater systems etc.

### Duplex stainless steel

Ambica Steels is the largest producer of Duplex Stainless Steel Long Products in India. It produces these materials for a wide variety of applications and industrial sectors. These user segments are the benchmark for quality. Every part is continually and stringently checked for quality and certified. Ambica's steels are melted, cast and formed with the perfection and care.

Due to its two-phase microstructure, Duplex steels are extremely tough to produce. It took Ambica Steels many years of constant trials & errors, before gaining a complete control over this steel. The dual phase structure demands a perfect balance in the chemistry of these steels.





## Man at the helm of Ambica Steels

Mr. Chander Parkash Gupta is at the helm of affairs at Ambica Steels who his journey in Stainless Steel manufacturing in 1988 when the Indian market was dealing in 300 series stainless steel for its domestic utensils market application. He spearheaded a revolution in the Industry with two important breakthroughs – Introduction of Electric Induction Furnace, a low-cost alternative to the traditional electric arc furnace route allowing him to compete with the cost of production of a much larger plant. Secondly, the substitution of the expensive element Nickel with Manganese to produce what is commonly called as the 200 series Stainless Steel.

There were huge benefits of 200 Series as compared to the industry's prevalent use of Nickel-rich 300 series. Reduced dependence on Nickel imports and substitution with the indigenously available Manganese, which is readily available in India, meant that he could deliver raw material to utensil manufacturers at highly reduced prices for the price-sensitive end consumer. The innovations done by Ambica Steels in this period were met with strong demand from the customers and the firm grew from strength to strength.

## The culture of stainless steel making

The company perfected the metallurgical processes in its facilities in spite of limited infrastructure in India to support such innovations. The company, however, was able to create a "strong culture of steel making" through innovation and control of processes.

In March 2010, Ambica Steels became the first organization in India to achieve Aerospace AS 9100C certification, certifying

them to become the supplier to the aviation and aerospace industry. Currently, the company holds a number of International Quality Standards Certifications from Germany, UK and India enabling it to supply to all International Markets for technologically most demanding applications including automotive, forging, pumps, valves, fitting and shafts.

## Technology

**Material testing:** Ultrasonic testing is most common non destructive testing method performed on materials. The material is to be tested does not need to be cut or exposed to damaging chemicals. It is a technique used to detect internal cracks/defects within the product/material i.e steel bars by sending short wavelength sound waves of high and low frequency through the test material. There are no health hazards associated with it. This test ensures that bars are free from any internal defects.

**Radioactive contamination:** All raw materials used to make steel at Ambica Steels are scanned and tested for radioactive contamination even before they enter the premises.

Ambica Steels has always been well aware of its responsibility of delivering the radiation-free products to its customers, and to endorse this principle the management had bought 2 radiation dosimeters almost eight years ago (Environmental Radiation Dosimeter is the instrument that is used to check the presence of radioactive contamination like photons & Gamma Radiation in steel scraps).

Today, the company is also using RAD detectors with external sensors. These instruments can measure faster and can measure much lower contamination levels with a higher degree of accuracy.

**Heat Treatment:** In order to accomplish customer specific

material qualities and mechanical properties, Ambica Steels has set up all heat treatment processes in-house, which are combined to engineer the highest performance product. These perfectly controlled heat treating furnaces and quenching tanks enables the company to maintain uniform temperatures and cycles. The result is a more reliable product, with increased consistency in the mechanical properties.

## Feathers in Ambica's cap

- First Indian company to get certification for producing Aerospace Grade Stainless Steel (AS 9100)
- Largest Indian Producer of the Duplex Stainless-Steel Long Products
- Largest Producer of Precipitation Hardened Stainless Steels
- Exports to over 50 countries worldwide and awarded multiple times as a Star Export House.
- One of the Top Three Stainless Steel companies in India across most of the parameters

## Global customers

The company has customers in 56 countries which is a testament to its focus on quality and technical capabilities. It has served around 2,000 customers till date with exports in North America, South America, Africa, Asia, Europe as well as Oceania. It has served more than 610 customers in Asia, 589 in Europe, 137 customers in South America and 43 in North America.

Some of the prominent customers include renowned names such as Maruti Suzuki, Mercedes-Benz, Volkswagen trucks, General Electric, Schlumberger, BHEL, WIKA, KSB Pumps etc.

The company's next goal is to become a Rs. 1000 crore entity by 2020 and strengthen its place in top 3 Indian Stainless Steel companies.

Lucas D'Souza