

# Futuristic Fabrication

A novel combination of automation and process technology has already boosted the fortunes of one fabricator, and with a planned global rollout, is looking to impact those of many others.



**T**ripling of turnover, new, international orders, and faster, more accurate production.

These are the dreams of many manufacturers but became reality recently for Cimotec Engineering, a Bangalore-based company supplying earth moving and road construction equipment and components for elevators to clients in India and across the world.

And what brought about this near miracle? "Some smart choices", says **Sri K N Srinivasan**, Cimotec's Managing Director. He made some courageous and well-timed decisions to go in for a major facility upgrade, which included a key investment in a futuristic-looking robotic plasma cutting solution, Roboplazma.

Cimotec now provides clients with high precision, high speed, 2D & 3D cutting and bending of all types, shapes and sizes of metals. The use of top-of-the-line technology has allowed significant and visible developments and improvements in quality, productivity and aesthetics.

## Boosting Productivity

Developed by **Plazma Technologies** ([www.plazmasolutions.com](http://www.plazmasolutions.com)), a specialist plasma cutting equipment company based in India's metalworking industry hub of Pune and helmed by inventor and entrepreneur **Hughen** and Director **Arundhati**, Roboplazma, as the name implies, combines robotic automation with plasma cutting.

Roboplazma delivers an attractive proposition for the fabricator: several processes can be carried out on one machine in a single setup, eliminating inefficiencies from repeated material

handling and multiple machine setups. And at the cutting edge is a patented stainless steel and water-cooled plasma torch, which provides virtually slag-free cut edges, with minimal heating and distortion.

At Cimotec, previously, in order to cut one 'C' channel on a conventional gas cutting machine, six persons worked over a consolidated time period of 50 minutes to perform this single job:

- Two gas cutters
- Two operators for post-cut grinding and beveling
- Two helpers for material lifting
- 10 minutes for loading & unloading
- 10 minutes for plate marking
- 15 minutes for slow level gas cutting
- 15 minutes further for grinding/deburring

This meant slow job completion, non-delivery of jobs in time, and a drag on the company's efforts to grow further and become globally competitive.

Today, however, the picture at the Bangalore plant is very different:

- One operator
- One helper
- Five minutes cutting time

As well as allowing two workers to complete the same job in just five minutes, the burr is now easily removable, which means there is no need to waste additional time in grinding and finishing. And slots, holes, bevels and chamfers, which were not possible with gas cutting, can now be done.

## Fab Flexibility

"People are used to seeing a robot performing a repetitive job, but what we have done with robot technology is to develop equipment that delivers flexible automation to traditional fabrication shops," said Plazma