CATHARINA DAUM

Welding trains with the laser

Trains in India play an important role in locomotion. Universal Engineers manufactures luxury trains, including a new XXL laser welding cell from TRUMPF. But the company first had to get close to the enormous topic of trains. Hamsa Venugopalan, the boss, explains how this came about and how she is driving the company forward.

Universal Engineers has built up a solid reputation in India as a metal fabricator. How did the company start out?

The entrepreneur Vinod Bomb founded Universal Engineers in 1984, initially to make products for the electrical industry. I joined the company as part of the sales team, and I enjoyed the job of forging links with new customers. Eventually Mr. Bomb asked me if I would like to become a partner. I rose from a junior partner to the level of a Managing Director. I am tremendously proud and thankful for this opportunity.

How did the company make the jump from electrical products to trains?

Believe it or not, it all started with coach toilet handholds. We were commissioned to make a batch of handholds by the Chennai-based Integral Coach Factory ICF, which is India´s largest manufacturer of trains and motor coaches. They were delighted with the results and encouraged us to focus more on that side of our business. So we started evolving and gradually added various other products such as pantry equipment to our portfolio. In addition to handholds, we started supplying seating, doors, windows and more for trains and began fabricating assemblies. Nowadays, we make not only fittings for car interiors, but also their entire shell. ICF Chennai is very supportive and encourages our development. It is a win-win-situation for both of us.

Plenty of space: The production facility covers an area of over 20,000 square meters.

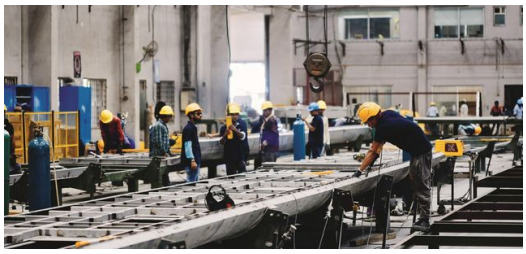
– Kunal Daswani

Hamsa Venugopalan, Managing Director of Universal Engineers, is responsible for more than 750 employees.

– Kunal Daswani

Universal Engineers relies on TRUMPF technology for laser welding of trains.

– Kunal Daswani



Universal Engineers manufactures not only the interior fittings, but also complete exterior walls for train wagons.

– Kunal Daswani

What product are you particularly proud of? And why?

That's a good question, but really we are proud of all the products we make. I'm a big fan of the railway, and that's why I'm so pleased to see our company having such a big impact on the outfitting of India's rolling stock. I think we are part of the tide of change that is currently sweeping across our country. And that's something we can be genuinely proud of.

It's clear how much you love trains. Did that stem from having toy trains when you were little?

I'm afraid not (laughs). When I was younger I wanted to study medicine, but unfortunately that wasn't possible for family reasons. So I began working for a company that supplied Indian Railways. That's how I got to know the railway business, and eventually it became one of my real passions.

Universal Engineers has supplied fittings for many railcars over the past ten years. How have you coped with such large production volumes?

We always strive to use the latest technologies in our manufacturing process to achieve the highest quality standards. We use CNC machines, robots and TRUMPF laser cutting machines, all of which help us satisfy our customers' expectations. We have implemented a quality assurance process to ensure product standards are met. And TRUMPF India supports us with their machines and great service.

We involve employees at all levels in the planning process.

Hamsa Venugopalan, Managing Director of Universal Engineers

How about your workforce? How do your employees keep pace with the new technologies?

We started this organization with seven employees and now we have 750. We constantly evaluate their skills and ensure they receive regular training in the relevant areas. We involve every level of employee in the planning process. An important factor in our success is their dedication, their ability to think creatively and their willingness to embrace ever-changing technologies and customer requirements.

Creativity is clearly a major part of your company's ethos. Does Universal Engineers actually come up with the designs for the passenger cars, too?

Yes, we have an in-house team that works full time on refining our designs, and I really get the feeling that it works. You

mentioned just now that Indian railcars look much better than they did just a few years ago. The impetus that is currently driving Indian Railways as a whole could mean our trains will eventually end up being a hugely successful export. Like the Indian Bollywood star Shah Rukh Khan. (laughs)

Hamsa Venugopalan is Managing Director of the Indian metal processor Universal Engineers. It is very important for her to regularly train her 750 employees and to involve them in planning processes. This keeps them motivated and creative.

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