



The Maharashtra Metal Works 'Giga Factory'

across the company's production and R&D, and most of its production is 3D printed by 3D printing.

Together with the UK's Royal Ordnance Company, the German company has been working on a project to develop a new type of rocket motor, which is designed to be a more efficient and reliable way of launching rockets.

James, who is also a pilot, has been the project's lead engineer, and he has been working on the project for several years. He has been working on the project for several years, and he has been working on the project for several years.

### Oxygen for survival in India

Two major health crises in India have benefited canmaker **Maharashtra Metal Works (MMW)** to such an extent that it has been able to invest US\$1.5 million in a smart 'Giga Factory' to ramp up tinplate aerosol can production.

MMW, based in Mumbai, closed its six factories for 10 days last year as the pandemic began rampaging through India.

But it was an acute shortage of oxygen used by ambulances to ferry the sick and dying to hospital that convinced the family-owned business to reopen and retool.

Instead of the usual variety of aerosols it had been making, the company converted its lines to produce thicker-walled cans for

four years. They've been snapped up by pilgrims to the high-altitude Himalayan temples of Uttar Pradesh. But last spring the company stepped up production of 500ml cans and introduced larger 900ml cans made from 0.36mm tinplate, thicker than its regular canstock, to withstand the higher pressures needed to store oxygen. The cans are double lacquered and a full-face mask is attached to the actuator.

Instead of sending its cans off to customers such as 3M, Berger and The WD-40 Company, which had made up its previous customer base, MMW began providing more packaging to Italian oxygen maker Boschi.

During the pandemic, MMW sold 500,000 cans to oxygen suppliers. This, along with growth in the sanitiser products market that the company already served, helped it prosper through those uncertain months.

"If we hadn't had the oxygen or the sanitiser market, we would have had half the turnover," Vasaya said. "It saved us from losing market share" and the predatory attention of "bigger fish" in India's canmaking industry.

The easing of the pandemic in India has seen no let up in demand for MMW's aerosol oxygen products. The pilgrimage

The 500ml cans hold six litres of oxygen, enough for 150 inhalations, and are now being carried by citizens of the capital as regularly as bottles of water, said Vasaya.

"The overall end goal is to make oxygen portable via cans," he said.

The return to a semblance of normality has also seen business pick up for MMW's other general line paints and insecticide business. But with capacity taken up for oxygen and sanitiser containers, the company is expanding.

By Dr. S. K. Vasaya, Founder & Managing Director, Maharashtra Metal Works

Describing the facility as a "Giga Factory", after the high-tech car battery-producing plant built by electric-vehicle giant Tesla in Nevada, Vasaya said the facility will be the first in India to operate solely with robots, producing around 300 cans per minute.

Justifying the huge investment, Vasaya points to two factors.

MMW is supplied by domestic producers Tata Steel and JSW and that makes the canmaker less vulnerable to recent tinplate price rises caused by shortages of metal from China. It also insulates the firm from the heavy import duties levied on shipments from India's Asian neighbour in the past year.

Also, market research has led MMW to a bullish forecast of 12 to 14 per cent annual growth in the paint and insecticide sectors. Vasaya estimates brands will make orders of 100,000 cans per day.

"Their suppliers are not able to fulfil that requirement," he said. "So, we are entering that sector and niche of the market to meet that demand."

360-degree growth in Turkey  
Turkish canmaker Ayasay Aluminium  
Ayasay Aluminium has been a leading  
domestic metal can producer since 1980  
and is now the largest can producer in  
the country.

The company has been a leading  
producer of aerosol cans for many  
years and is now a leading  
producer of aerosol cans for many  
years.