



32
COOLANTS AND LUBRICANTS
Optimising metalworking
fluids in the safest way









### PREDICTIVE MAINTENANCE

### 52 Intelligent manufacturing for wires and cables

A peek into the Indian wire and cable manufacturing industry, which serves industrial, construction, utilities and tele-communication sectors with advancing technologies

### SPECIAL FEATURE

DESIGN FOR MANUFACTURING

54 DFM: Simulating the manufacturing environment The adoption of DFM and its applications in an Industry 4.0 context

## CHALLENGES OF MSMEs 57 Unravelling the hurdles for

MSMEs in India

A concise look at the challenges MSMEs currently encounter

### New Products

All image courtesy: shutterstock

- 60 HP pumps with fluid handling technology and versatile applications; XiII-tec®: Powerful milling in a plug-and-play solution; Water soluble fluid for magnesium & aluminium machining Large-style horizontal machining center
- 61 Innovation leader and expert in individual welding solutions

### COLUMNS

- 03 Editorial
- 04 Contents
- 06 Industry Edge
- 62 Highlights: Next Issue
- 62 Company Index



LEADERSHIP

## Industry Titans and their inspiring Leaderships



An intriguing journey through industry leadership beckons the exceptional and visionary minds, orchestrating a symphony amidst the market's fierce competition. Leading through ever-evolving landscapes, pragmatic leaders hold the key. In our 14th anniversary issue, we proudly present interviews with industry giants, saluting their role in India's technological transformation and inspiring future leaders to elevate the nation.



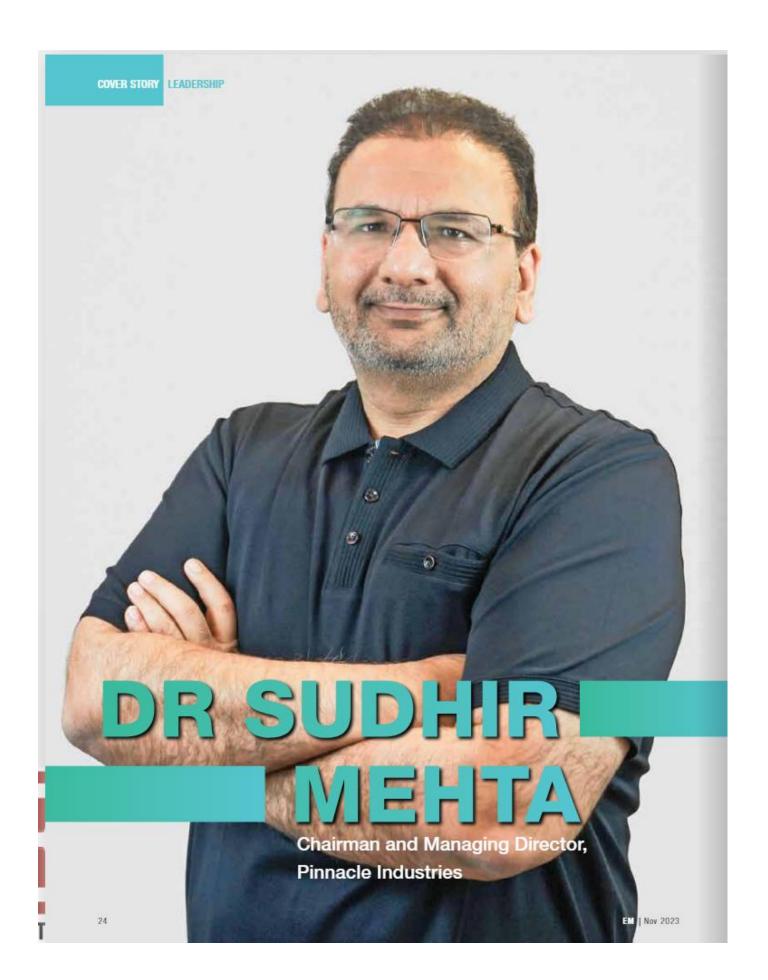
Neha Basudkar Ghate Joint Editor neha basudkar@oi-india.in



Sanjay Jadhav Assistant Editor sanjay jadhav@pi-india.in



Veda Shembekar Sub Editor veda shembekar@pi-india in



Q. What are the key factors that have contributed to Pinnacle Industries' success in becoming India's largest integrated commercial vehicle seating and interiors company? >> Pinnacle Industries and its success is a product of the opportunity that is India. With its diverse market, growing economy, skilled workforce and supportive government policies, India presents a conducive environment for businesses looking to establish or expand their manufacturing presence. We started in 1996, with manufacturing of seating systems for commercial vehicles, thereafter, venturing into automotive interiors and components, because we found that our customers were looking for kind of a one stop solution for all these areas. That is how we graduated from being a seat manufacturer to an integrated company offering end-to-end solutions for commercial vehicle OEMs across ICE & EV space.

Few years back, given our strong foothold and expertise in the seating systems and automotive interiors, we started our special application vehicle conversion business. Under specialty vehicles, we design, manufacture and supply customised vans for personal, business and special-purpose applications. Our tailored solutions include remodelling interiors and exteriors and providing an array of options to build vehicles for specific needs. We focus primarily on ambulances and healthcare/medical application vehicles. Currently, approximately 75% ambulances in India have at least one product from Pinnacle Industries.

# "India offers a favorable environment for manufacturing expansion"

Q. Pinnacle Industries recently rolled out an advanced seating system for the Vande Bharat Express Trains. How does it further contribute to your business?

>> We are very proud to be one of the only few suppliers for the Vande Bharat Trains' seating systems, and to have designed, engineered, developed, validated and supplied these seats from scratch in India. These trains are a testament to our country's growth and transformation, and we are extremely thrilled to be a part of it. This significant development reinforces our unwavering dedication to creating and delivering products that prioritise passenger safety, comfort and aesthetic appeal, but also highlights our optimism in designing and manufacturing innovative, cost-effective and durable world-class products for the railway industry and beyond.

We recognise the immense growth potential of the railway sector, both in India and globally. As new-age, high-speed trains gain prominence, the demand for safer, more comfortable and visually appealing seats becomes paramount. With each product we bring to the market, we strive to meet these expectations. We believe that our

EM | Nov 2023 25

Q. What do you think about e-mobility going forward? How is your company's business aligning to this?

Q. How do you envision technology shaping the future of the commercial vehicle industry. and what steps is Pinnacle Industries taking to adapt to these changes?

Q. Pinnacle Industries is a prominent player in India, but how do you plan to extend your global presence in the automotive and specialty vehicles market?

new seating system for railway segment will provide an enhanced and enjoyable travel experience for passengers, setting new benchmarks in the industry. We are a proud Indian company and with the railway seating business, an industry typically dominated by established institutional or international players, we foresee great future growth potential. This opportunity drives us to work harder and continue delivering exceptional seating solutions that surpass expectations and contribute to the growth and success of the Indian Railways.

>> The shift towards electric mobility is a once in a century opportunity for OEMs and components companies alike. With our unique expertise in the design, development, assembly and manufacturing facilities in Pithampur and Pune in the components segment for e-mobility applications, we are an exclusive destination for end-to-end EV component requirements and solutions. We produce and market certified precision EV components, including sheet metal and tubular pipe components, body parts and seats for major brands globally.

Our expertise in both design and manufacturing allows us to optimise modular solutions from a technical, commercial and production aspect, reducing the risk of multi-iteration design and enabling shortened development times. The EV ecosystem is building up fast with many start-ups and new-age manufacturers coming up in different parts of the country besides major OEM's making huge expansions in this segment.

>> The commercial vehicle industry, which accounts for about 4% of India's total domestic automotive production volumes, is expected to grow at a CAGR of about 8% by 2028. As a company, our focus has always been primarily on the quality and innovation. We have extremely robust research and development division that has enabled us to adapt to industry changes, creating new designs, materials and technologies specific to the needs of our customers. We work very closely with our customers and regularly collaborate with them to stay updated, evaluate and adapt to their product portfolios constantly.

>> We have built a strong reputation and legacy in the Indian automotive industry over the years and now we plan to extend our footprints globally. Over the years, we have had various technical and strategic collaborations with leading and reputed global companies, and we look forward to propelling Pinnacle's leadership across all our business units in international markets.

Going forward, in the next three years, we expect exports to constitute 30% of our sales across each of our business unit, and we are confident to achieve so. This commitment not only aligns with our global expansion plans, but also enhances our reputation as a responsible and forward-thinking player in the automotive seating and components and specialty vehicles industries.

26 EM | Nov 2023