AIDA: Powering India's Automotive-Led Manufacturing Transformation

AIDA is leveraging its century-long expertise in precision presses to support manufacturing transformation in India's auto industry.

MT Bureau

MSP-3000-370 High-Speed Precision Press (wide bed type) represents high-end series of larger high-speed presses equipped with more suspension points to drive the slide, achieving an even higher level of ultra-precision forming.

As India's automotive and manufacturing landscape enters a decisive phase of transformation – driven by electrification, premiumisation, localisation and export-led growth – the role of advanced metal-forming technologies has never been more critical.

Against this backdrop, AIDA's century-long legacy in press manufacturing is finding renewed relevance in India, one of the most strategically important markets within its Greater Asia operations.

Founded in 1917, AIDA has built its global reputation on precision engineering, reliability and long-term partnerships. Today, as Indian OEMs and suppliers scale up EV programmes, lightweight platforms and high-quality export production, AIDA is aligning its servo and mechanical press technologies closely with the country's evolving manufacturing priorities.

"Since our founding in 1917, we have accurately anticipated changes in society and industrial structures, developing Japan's first and the world's first press machines and forming systems. A major factor in maintaining our technological leadership has been our evolution as a forming system builder – not just improving individual machines but building entire forming systems encompassing dies, processes, automation and control," said Junichi Yonaiyama, Director, Operating Officer & Division Manager, Sales Headquarters, AIDA.

Aligning with India's automotive transition

India's automotive transition – spanning passenger vehicles, two-wheelers, three-wheelers and commercial vehicles – is reshaping component design and production requirements. Leading OEMs such as Tata Motors, Mahindra & Mahindra, Maruti Suzuki India and Hyundai Motor India, alongside new-age EV players, are accelerating investments in new platforms, battery architectures and localised supply chains.

This shift has significantly increased demand for high-strength steel forming, aluminium components and complex geometries used in battery enclosures, motor laminations, structural parts and lightweight body components. AIDA's servo press technology, with precise control over slide motion, dwell time and forming pressure, is particularly well suited to these emerging applications.

Yonaiyama explained, "We developed our own servo motor specifically for press machines, pursuing low-speed, high-torque characteristics and successfully commercialised a direct-drive servo press without a reduction gear. This enables powerful, high-efficiency forming with minimal energy loss and delivers improved quality, higher yield rates, energy savings and productivity gains for OEMs and Tier 1 to Tier 3 suppliers."

By enabling improved material flow and reduced springback, AIDA presses help Indian manufacturers achieve consistent quality while optimising material utilisation – an increasingly critical factor in cost-sensitive automotive programmes.

Flexibility for India's diverse manufacturing ecosystem

One of the defining characteristics of Indian manufacturing is its diversity. While large OEMs and export-oriented Tier 1 suppliers are investing in fully automated press lines and digitally connected factories, a significant base of Tier 2, Tier 3 and SME manufacturers continues to operate with semi-automated or manually assisted systems.

AIDA addresses this diversity through scalable solutions that align with customers' immediate requirements while remaining future-ready. Press systems can be deployed in manual or semi-automated configurations, with provisions for later integration of robotics, sensors and digital monitoring systems.

"In India, customers often prioritise reliable performance, competitive capital cost and fast payback. Our strength lies in offering rugged, value-optimised solutions that deliver essential performance today while remaining adaptable for future upgrades as customers' production volumes and technological maturity increase," stated Yonaiyama.

This pragmatic, step-by-step approach allows Indian manufacturers to balance capital expenditure with productivity gains and return on investment while building a pathway towards Industry 4.0 adoption.

Digitalisation and intelligent forming systems

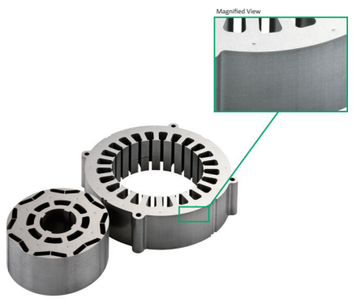
Digitalisation is gaining momentum across India's automotive and component manufacturing sector. OEMs increasingly expect equipment suppliers to support predictive maintenance, energy monitoring and data-driven process optimisation.

AIDA's response centres on production support using DX and AI. "Our flagship initiative is the Ai CARE Data Analytics System, which not only visualises production data but also analyses and diagnoses the meaning behind that data. By offering an edge-type version that can operate without a network connection, we have created an environment that is easy to implement even at sites with security or communication constraints," Yonaiyama noted.

These intelligent press systems contribute to reduced unplanned downtime, more stable production and improved asset utilisation – key enablers for high-volume automotive manufacturing in India.

Strong local presence: AIDA India's competitive advantage

Beyond technology, one of AIDA India's biggest differentiators is its robust local presence. The company's technical and parts centres in Gurgaon and Chennai play a critical role in supporting both Indian and international manufacturers operating in the country.



AIDA's high-speed MSP Press rapidly blanks and stacks motor core laminations inside the press – excellent for EV industry use.

Junichi Yonaiyama, Director, Operating Officer & Division Manager, Sales Headquarters, AIDA.

With ready-stock presses and spare parts available locally, AIDA is able to respond quickly to service requirements and help customers minimise downtime – an essential consideration in India's high-utilisation production environments.

"Proximity to customers is crucial in fast-growing markets like India. Local sales and service teams ensure faster installation, troubleshooting and aftersales support, helping customers maintain stable production under tight schedules," Yonaiyama emphasised.

Application engineering, operator training and localisation support developed in India also enable AIDA to tailor press technologies to local operating conditions, materials and cost structures.

Beyond automotive: New growth segments

While automotive remains central to AIDA's India strategy, the company is also expanding into adjacent sectors that are growing alongside manufacturing. These include electronics, appliances, precision engineering and new energy applications.

"In addition to automotive, we are actively pursuing technological contributions to hydrogen fuel cells and the new energy field. Our capabilities are increasingly valued in applications that demand both strength and precision," revealed Yonaiyama.

In India, the rapid growth of domestic electronics manufacturing and appliance production is creating fresh demand for high-speed, high-accuracy presses capable of maintaining tight tolerances at scale – areas where AIDA's technologies continue to find strong relevance.

India in AIDA's Greater Asia strategy

AIDA's Greater Asia expansion, initiated in 1989, reflects a long-term strategy to embed the company within the region's manufacturing ecosystems. With sales and service centres across Asia and a global production footprint spanning Japan, China, Malaysia, United States and Italy, AIDA has built a global optimised press manufacturing network.

"This five-region structure enables lead time reduction, cost optimisation and rapid response to regional customer needs. It allows us to deliver high competitiveness while maintaining consistent global quality standards," averred Yonaiyama.

Within this framework, India plays a dual role – as a large, fast-growing end-market and as a strategic hub supporting regional operations.

The road ahead

Looking ahead, AIDA sees strong long-term growth potential in India, driven by a robust domestic automotive market, lightweighting trends and the country's rising role as a global manufacturing and export hub.

"We will strengthen R&D investment in high-value-added products supporting a decarbonised society, such as EV components and hydrogen technologies, while advancing forming systems through DX and AI. Our priority is to provide metal forming systems and solutions that enable stable production of the final products our customers require while maintaining trust through high precision, ease of use and durability," said Yonaiyama.

As India progresses towards Industry 4.0 and AI-enabled manufacturing, AIDA envisions press systems that go beyond forming metal – becoming intelligent assets that support sustainable, data-driven production.

By combining global engineering excellence with a strong local footprint and deep understanding of India-specific manufacturing realities, AIDA is positioning itself as a long-term partner in India's automotive-led industrial transformation.

Going forward, AIDA India will showcase its latest servo press and SCADA solutions at IMTEX 2026, scheduled from 21–25 January 2026 at BIEC, Bengaluru (Hall 5, Booth A102).