

ITALIAN MACHINE TOOLS, ROBOTICS & AUTOMATION INDUSTRY ~ NEWS

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PIATTAFORMA INDIA PROJECT

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UCIMU-SISTEMI PER PRODURRE



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REVOLUTIONIZING METALWORKING: AIDA'S IoT TRANSFORMATION

AIDA has more than 15 years presence in India since 2007 and have proudly served hundreds of customers from automotive, electrical & appliances industries. AIDA established a press showroom in Chennai, with presses available for viewing & ready for next day delivery. It reflects AIDA India's dedication to provide the press equipment with shortest lead time possible. With professional service engineers stationed in both Delhi and Chennai, AIDA also promise for a consistent supply of readily available spare parts and accessories, ensuring uninterrupted operations and minimizing any downtime.

The Internet of Things (IoT) found numerous applications in the field of metalwork and manufacturing, helping to improve efficiency, quality control, safety, and maintenance. AIDA is the leading metal forming players embracing IoT's potential.

The manufacturing industry is facing major challenges which include a decreasing number of young workers and aging skilled engineers. Utilizing DX technologies, such as visually monitoring operation conditions and production, and using AI to identify signs of potential issues serve to reduce the burden on operators and make it possible to maintain stable operations that will not be affected by the experience levels of individual workers.

Strengths That Drive Corporate Value

The company continues to improve corporate value through enabling customers achieve optimal production lines via leveraging strengths, including unique technologies and product development capabilities amassed as a pioneer in press forming. AIDA's comprehensive solutions include auxiliary equipment and forming methodology development, as well as comprehensive after-sales services.

1. Technological And Product Development Capabilities

AIDA develops and provides optimal press lines that leverage the unique technologies and product development capabilities accumulated for more than a century. The firm developed the world's first direct-drive servo press which revolutionized press forming systems, and also developed many press machines that were the first of their kind in the history. AIDA continues to evolve as a specialist in press forming systems by leveraging the technological capabilities developed through the years.

Moreover, AIDA provides press optimizing and customizing in accordance with clients' needs to help the latter agilely respond to market fluidity. It has an extensive lineup of high-value-added presses suited for a wide array of applications and objectives—including the forming of thick plates and high-speed precision forming—and by internalizing the production of critical components.

2. Comprehensive Solutions

AIDA offers customers optimal solutions spanning from press machines and auxiliary equipment to forming methodology development. Given manufacturing sites becoming increasingly sophisticated and diverse in terms of technological innovation and energy conservation, a perspective that considers the entire production line is needed to resolve challenging issues. AIDA

provides optimal solutions by recommending comprehensive press forming systems, auxiliary equipment such as material feeders and automated transfers, and forming methodology development.

Service and Support Capabilities Powered by IoT

AIDA actively maximises IoT's advantages in both equipment and after sales. In terms of equipment, the company is a strong supporter of preventive maintenance, which is powered by IoT system- AiCARE. With AiCARE sensors and data analytics, metalworking companies can predict when a machine is likely to fail based on its usage and condition. This allows for proactive maintenance, reducing unplanned downtime and improving overall equipment effectiveness.

In the aspect of Artificial Intelligence (AI), AIDA debuted its latest DSF-N2-4000A series servo control system. The precision engineering, advanced software for the new servo control system is set to revolutionize industries' managing and controlling press equipment.

AIDA's latest state-of-art press control system is engineered for:

- Easy servo motion setting
- Integrating seamless press and peripheral equipment operations
- Detecting occurring faults
- Real time monitors
- AI predictive failure detections - alarm will be displayed when AI detects signs of anomaly.

The above's ensure operators can easily manage the press equipment, ideal for industries striving for operational excellence.



** The Drive Recorder starts automatically and enable viewing of the in-die footage when a fault occurs.*

AIDA's DSF-N2-4000A series servo control system is a perfect illustration of the firm's leveraging the power of AI — being equipped with an AI embedded load monitoring system to ensure longevity of expensive dies. During the press forming process, dies are used to apply the load needed to form materials. Failure to appropriately apply these loads could result in defective products or damaged dies. The customary load monitoring method is to use a 2D graph to display 4 load points on the bolster, but AIDA's monitoring system enables users to see the load shifts over the entire bolster in a 3-D graph at a glance. AI monitors if load waveforms are distorted and whether the maximum load is occurring at the appropriate point, which enables extending expensive dies' lives.

For AIDA, integrating IoT into metalworking is a transformative leap towards greater efficiency, precision, and competitiveness. By harnessing the power of real-time data, predictive analytics, and remote monitoring, metalworking companies can optimize their processes, reduce downtime, and enhance product quality. The ability to adapt to changing market demands, improve sustainability, and remain at the forefront of technological advancements makes IoT an indispensable tool for modern metalworkers. As the industry continues to evolve, embracing IoT will not only be a strategic advantage but also a necessity to thrive in an increasingly connected and data-driven manufacturing landscape. The latest control system debuted in IMTEX 2024 at Bangalore, India, on 19-23 Jan 2024 and garnering favorable response among the visitors.

For more information: www.aida-india.co.in

The project Piattaforma India has been promoted by UCIMU – Association of Italian Machine Tools Manufacturers and AMAPLAST – Italian Plastics and Rubber Processing Machinery and Moulds Manufacturers Association. The two associations agreed on the idea that promoting a network of associations and entrepreneurs who have developed knowledge and experience on the Indian market, can be useful in favoring of new paths of development for business. The Indian companies who are interested to form JV, cooperation, technical tie up, purchase machinery etc from/with Italian companies can contact below mentioned address for any assistance:

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