Fair Oaks Multi-Suspension Press Platform Addresses Large-Format Precision Stamping Gap

Taiwan's FMT Series uses multi-point support for areas up to 3,700 × 1,200 mm, supporting oversized motor laminations and wide structural components.

TAIPEI, TAIWAN, October 2, 2026 /EINPresswire.com/ -- FAIR OAKS PRECISION MACHINERY (F) CO., LTD, a Taiwan-based manufacturer exporting high-speed precision presses to more than 17 countries, is positioning its FMT Series multi-suspension press platform as a solution to a structural limitation that has long constrained large-format stamping: the loss of slide parallelism and dimensional consistency as bolster area increases.

The limitation is geometric rather than a question of tonnage. In a conventional single-point press, stamping force is transmitted through a single central connection to the slide. As bolster width grows, the distance between that drive point and the outer edges of the die increases, and with it the tendency for the slide to tilt microscopically under load — particularly where dies apply asymmetric resistance across the working area. Over sustained production, this uneven loading accelerates guide component wear and introduces dimensional variation in parts stamped toward the edges of the bolster, even when rated press capacity is more than adequate.

Distributing Load Across Multiple Support Points

The FMT Series addresses this through a multi-suspension architecture that distributes both driving force and structural support across multiple points around the slide, built around an octahedron-configuration needle roller bearing set. The design maintains consistent guide clearance and load distribution as bolster width scales, allowing the slide to resist deformation across a substantially larger working area than a comparable single-point machine.

Two models are currently offered. The FMT-350 provides three support points, a nominal press capacity of 3,500 kN, a bolster area of 2,700 × 1,000 mm, and operating speeds of 100 to 400 SPM. The FMT-450 extends to four support points, 4,500 kN capacity, and a bolster area of 3,700 × 1,200 mm at 100 to 300 SPM. Both models are driven by 75 kW main motors and manufactured to the JIS Special accuracy standard, with machine weights of 78 and 100 tons respectively.

The platform was developed specifically for ultra-high-precision molds requiring large bolster areas — a category that includes the larger stator and rotor laminations used in electric vehicle traction motors and industrial motor production, as well as wide structural components in

automotive and home appliance manufacturing.

Enabling Larger Parts Without Tolerance Compromise
For manufacturers, the practical consequence is the ability to scale up part dimensions, or run multi-cavity dies producing several components per stroke, without accepting the tolerance degradation that typically occurs near the edges of a large working area on conventional equipment. Applications where this matters most include large structural panels requiring consistent flatness across their full width, and motor laminations where concentricity and stack-height precision must hold uniformly across the die.

Multi-point support also contributes to sustained rigidity over long production runs. By distributing structural load rather than concentrating stress at a single drive point, the architecture reduces the cumulative wear patterns that develop when a single-point press operates near the limit of its effective bolster capacity — a factor with direct implications for maintenance intervals and total cost of ownership in high-volume operations.

Built on Three Decades of Press Engineering
The FMT Series applies the same core design principles found across Fair Oaks' press lineup, including the GH Series crank-type high-speed presses: stress-relieved high-tensile cast iron frames, structural geometry optimized through computerized finite element analysis, and frames tightened by tie-rods under hydraulic preload for maximum rigidity.

Founded in 1995 in Taichung — the center of Taiwan's precision machinery industry — Fair Oaks relocated in 2012 to a purpose-built facility of approximately 6,000 ping (roughly 213,540 square feet) in Shengang District. The company designs and manufactures its presses, feeders, levelers, and uncoilers in-house rather than sourcing peripheral equipment externally, allowing complete stamping lines to be engineered as coordinated systems.
About Fair Oaks Precision Machinery

FAIR OAKS PRECISION MACHINERY (F) CO., LTD has manufactured high-speed precision presses and peripheral equipment in Taichung, Taiwan since 1995. Its product range includes the GH Series crank-type high-speed presses, FMT Series multi-suspension presses, GF Series high-speed feeders, GS Series levelers, GU Series double-head uncoilers, and the FST/FSV Series servo leveler and uncoiler system. All presses are manufactured to the JIS Special accuracy standard. Fair Oaks equipment serves the automotive and EV motor, 3C electronics, home appliance, and industrial motor industries across more than 17 countries in Asia, Europe, and the Americas, supported by authorized dealers in India, Turkey, Egypt, and Bulgaria.
For more information, visit https://www.fairoaks-press.com.tw

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