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# NEWS RELEASE



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## **At EMO Fair, Germany, AMADA Group Presents Original Total Solutions**

AMADA (President and CEO: Mitsuo Okamoto) will participate in the EMO Hannover 2011 trade fair to be held in the City of Hannover, Germany. Twelve types of machines will be exhibited, including fiber laser machines, the latest model bending machine, servo presses, complex machining lathes, as well as turning and grinding machines. In each of the four processing solution categories, AMADA will introduce new technologies and products along with the AMADA Group's original processing proposals with an aim to gain new markets in Europe. The venue of the exhibition is the Turning Machine Hall (Hall 17), an area that will be filled with competitive machine tools from around the world. There, the AMADA Group will utilize a space of over 1,000 m<sup>2</sup> to promote its group expertise and solutions. Particular emphasis will be given to presenting solutions covering all processes driven by innovative technologies, from processing of large-sized components typical to the infrastructure and energy markets, to stable, high-precision processing.

At the show, we will set up four areas to display processing solutions within our booth and display new products by demonstrating work processing methods by job type. Thus, we will present our latest technologies and propose engineering and processing technologies for difficult-to-cut materials and other special materials.

First, in the "Combined and Automating Solution" category, we will present a solution that enables high-efficiency, high-precision processing that is achieved through combined processing and automation-based process consolidation. The exhibits include S-10, a complex machining system with one spindle and two turrets,

AD-18S, another complex machining system, JJ-3, a lathe with two spindles and two turrets, and "complex machining system AA-1 combined with CMB-100CNC" for integrated processing to take care of cutting with a carbide circular saw, burr removal and turning.

S-10 is a focus of attention as this will be the first time exhibited at a trade show abroad. As a robot-type complex machining system, one unit of this product can take care of processing on all six surfaces of a bar and cast/forged materials of non-standard shapes through the final process using different feeding devices selected as appropriate, and is enabled for machining of parts of up to 10 inches in diameter. In the trade show, the unit will demonstrate machining of hydraulic and automotive parts, showing solutions for productive concurrent machining utilizing the one-spindle, two-turret configuration, and functionality that enables operation from the front as well as easy-to-handle process switchover to small-lot machining.

In the "High-precision Die & Mold Solution" category, the focus will be on integrated processing for die and punches . We will propose a total solution incorporated software and measuring instruments, covering processes from precision grinding of small parts to medium-sized parts for surface and profile grinding. In this section, TECHSTER-84, a newly developed medium-size surface grinding machine , is capable of continuous processing through out to the final finishing stage by automatic measuring and compensation for the parts. Moreover, the wheel dressing functions are added to prepare for the shape of the following parts, helping to realize a high-precision and ecological solution. Other exhibits include DV-7M, a graphical profiling grinding machine for more complex and special precision machining of tools, and DV-1, a graphical profiling grinding machine with a built-in robot for punches and various precision parts. In the area of integrated die plate machining, THV-430, a duplex milling machine that more easily grinds components cut using a high-speed, high-precision band saw to achieve parallelism, and MEISTER-G3, a high-precision grinding machine, are to be exhibited.

In the "Difficult-to-cut Material Solution" category, focusing on machining of large-size, difficult-to-cut materials for heavy industry, infrastructure and energy markets, we will exhibit PCSAW-720, a pulse-cutting band saw with a supreme-quality carbide blade AXCELA incorporated as a reference product. The synergy with AXCELA will enable us to propose high-speed, high-precision cutting

for low surface roughness and prolonged blade life. In addition, for major steel material industries, we will demonstrate automated separation and high-speed cutting of block materials using "PCSAW-430 + Robot + L/UL", a pulse-cutting band saw machine incorporating peripheral devices that enables separating of cut products from materials, burr removal and marking.

In the "Sheet Metal and Press Solution", we will exhibit the FOL3015-AJ, a high-speed and high-precision fiber laser machine incorporating our proprietary oscillator, the HD-1003ATC, a bending machine with an ATC (automatic tool changer) to debut worldwide, and the SDE-2025, a servo press with a drastically improved machining scope that realizes low-speed, high-energy performance.

FOL3015-AJ achieves high-speed cutting at 100m per minute for thin sheets, and is capable of continuous cutting of aluminum, brass, copper, titanium and difficult-to-cut materials such as high-reflectance and heterogeneous materials. Its level of energy efficiency is three times that of conventional machines, and power consumption is one third. The FOL3015-AJ is also expected to significantly reduce maintenance work.

HD-1003ATC has a capacity of 100 tons and a bending length of 3,000mm. It demonstrates particularly advantageous effects in the production of small quantities of many items involving a large number of tool changes. Conventionally, production of small quantities of many items has required a large number of die replacement jobs, leading to reduced productivity as the bending process is interrupted each time. This new product has a built in automated tool changing function, which reduces die replacement time to one sixth of that of conventional machines. Furthermore, it is capable of supreme-efficiency stepped bending based on computer-assisted automatic judgment of the die and layout required for the target product. It also incorporates an auto-sliding footswitch that assists the operator in stepped bending work, and also supports elimination of trial bending with the automatic angle function using an angle sensor in conjunction with VPSS for three-dimensional operation of 3D data. In our booth, this product will demonstrate its power by producing large numbers of items in small quantities.

Servo press SDE-2025 will demonstrate drawing with dies of stainless steel materials that typically require high levels of energy consumption. It achieves a

broader machining scope with a sliding motion function that can be set freely in a way that is expected of a servo product. Moreover, from an environmental viewpoint, the SDE-2025 has been designed as an eco-friendly machine with low noise and power consumption. We will also exhibit servo press forming examples utilizing laminated dies fabricated using a laser-based complex machining system. We will propose the above as AMADA Group's original metal sheet and press solutions.

At our trade show site, we will present our technological and proposal-making abilities based on AMADA's three solution concepts: expansion of machining scope, production of variable item types in variable quantities, and ecologically-friendly production.