NEWS RELEASE

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AMADA MACHINERY CO., LTD.

# Launch of the "WS-700VP" Structural Steel Drilling and Band Saw Combined Production Machine

The integration of drilling and cutting realizes process integration and space-saving requirements

AMADA MACHINERY CO., LTD. (Isehara City, Kanagawa Prefecture; President: Yasuhiro Kawashita) will launch sales of the WS-700VP structural steel drilling and band saw combined production machine from mid-June as a new product in its WS Series lineup.

With the WS-700VP, the reduced space and labor requirements achieved by integrating the drilling and cutting processes are also realized for the 700 size, where there is a high-level of demand. The machine can be used for various workpiece shapes such as H-beams, channels, angles, columns, and can perform continuous machining and angle cutting. It is also equipped with three-axis ATC (automatic tool changer) equipment, which reduces the setup time. The system adopts a reverse angle of elevation cutting method in which the cutting is upward, in the opposite direction to conventional machines. This significantly reduces the occurrence of burrs and also improves the cutting surface accuracy.

In recent years, the social issue of labor shortages has also been having a notable impact on the construction industry and the steel industry, and there is a growing need for automation and systematization. In response to these issues, AMADA MACHINERY will contribute to the reduction of the labor and space requirements for the primary machining of steel frames by promoting the integration of drilling and cutting processes. The company will continue to support manufacturing workplaces by developing products that address the

issues that customers face.

## ■ Main features

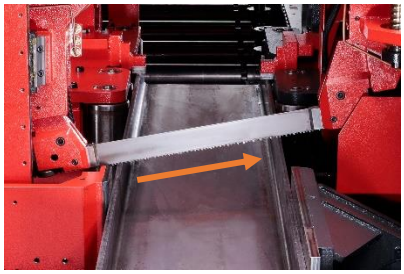
### 1. Reduced labor and space requirements due to process integration

This machine has integrated the drilling and cutting processes into a single machine to greatly improve work efficiency and productivity. In conventional straight line layouts, separate machines are installed for the drilling and cutting and it is necessary to assign two operators. This machine is more efficient by combining both processes. Additionally, the space required for installation is approximately 30% smaller than on a conventional straight line.

### 2. Automatic drilling exchange for improved workflow

The machine is equipped with an ATC device on three axes (V, R, and L) and automates the work for drill exchanges, which was previously performed manually. This reduces setup time and improves work efficiency. It is also possible to automatically exchange the drill on an axis that is in standby while one axis is operating to improve machining time. Furthermore, the ATC devices on the three axes can each store eight tools, such as drills with different diameters, marking tools, tapping tools, and deburring tools. The tool cooling system has been designed with consideration of the environment and adopts semi-dry processing in which a mist of water-soluble cutting oil is created and supplied from oil holes.

### 3. Improvement of cutting surface accuracy and quality



The use of the reverse angle of elevation cutting method and cutting in the upward direction makes it possible to greatly suppress the occurrence of burrs on the underside of the product. It also suppresses the rolling up of cutting chips, so the accuracy of the cutting surface is improved. Additionally, it is possible to perform angle cutting from 0° up to 45° maximum with automatic rotation.

### 4. Material feeding device, automatic loading/unloading device

For the material feeding device, a self-propelled carriage that can perform positioning is used. As a standard specification, it is possible to feed the material with a 12,000 mm stroke without a grip change, which improves the machining accuracy. Additionally, the positioning and turning of the grip part that clamps the tail end can be performed automatically to suit the workpiece. This makes it possible to feed various types and sizes of workpiece material. An optional automatic loading/unloading device automates the processes from the loading of the workpiece to the sorting of the product, which realizes an improved rate of utilization and reduces the burden on the workers.

■ **Specifications**

| Model name | | | WS-700VP |
|---|---|---|---|
| Maximum processing capacity | H-beam | mm | 700 × 300 × 13/24<br>400 × 400 × 13/21 |
| | Angle | mm | 250 × 250 × 35 |
| | Channel | mm | 380 × 100 × 13/20 |
| | Square pipe | mm | 400 × 400 × 16 Outer R 35 or less<br>600 × 200 × 12.7 Outer R 35 or less*1 |
| | Flat bar | mm | 500 × 32 |
| | Light C-channel | mm | 250 × 75 × 25 × 4.5*1 |
| Drilling | Number of spindle axes | | 1 axis each V, R and L |
| | ATC | | Installed on each axis (VRL),<br>storage capacity: 8 items on each |
| | Drill size | mm | High-speed steel: φ5 to φ50<br>Oil holes: φ14 to φ50 |
| Cutting | Blade size (W × T × L) | mm | 54 × 1.3 × 6,465 |
| | Angle cutting | | Front swing max. 45°<br>Product length: 200 mm or more in parallel length*2 |

*1. For square pipes and light C-channel, a jig is required if the size is less than 90 mm or the plate thickness is 4.5 mm or less.
(Jigs are not required for angle, channel and flat bar.)

*2. Depending on the size of the workpiece, the required parallel length may be more than that written above.

■ **Start of sales** Mid-June 2025

■ **Annual sales target** 5 units/year

■ **Seles price (excluding tax)** 124.2 million yen (base price)

End

* The information in this release is subject to change without notice.