NEWS RELEASE

June 3, 2025
AMADA PRESS SYSTEM CO., LTD.

Launch of the "WH-2A"

13-Axis CNC Dual-Point Coiling Machine for Ultra-Fine Wire

Achieves high-speed and high-precision processing,
with reduced setup time for ultra-fine wire coils

AMADA PRESS SYSTEM CO., LTD. (Isehara City, Kanagawa Prefecture; President: Kimio Horie) launched sales of the WH-2A beginning June 3rd. The WH-2A is a 13-Axis CNC dual-point coiling machine for ultra-fine wire that realizes high-speed and high-precision processing in ultra-small coiling. Coiling machines are spring forming machines that specialize in compression springs. They can also produce deformed compression springs with tapered shapes.

On the new WH-2A machine, the four axes of the dual-point coiling mechanism and the two axes of the initial tension mechanism allow precise control of the outer diameter and initial tension of the coil. In addition to general ultra-small compression springs, the WH-2A is also suitable for forming medical guide wire, which requires high precision. The peripheral equipment necessary for guide wire forming is also available as an option.

In recent years, in addition to demands for greater quality and productivity in manufacturing, there has also been a growing need for the automation and simplification of the setup process. This is in response to the backdrop of labor shortages due to the declining birthrate and aging population, and the retirement of skilled workers. The WH-2A offers a solution to these issues and supports high-efficiency production. The unique spring forming program "MNO2" simplifies program creation and visualizes information, and the

high reproducibility shortens the setup time and reduces the workload.

■ Main features

1. Achieves high-speed, high-precision processing

With the adoption of a dual feed roller, the feed pressure load applied to the wire is reduced and enables stable wire feed. Additionally, the high-resolution servo motor control enables fine movement and high-precision processing. The WH-2A is also equipped with the image measurement system "ZN-1" as standard and the camera sensor is used to instantly measure and sort the free length and outer diameter of the coil. The processing state of the spring is displayed in tables and graphs and it is possible to correct each axis.

2. Improves productivity due to reduced setup time

The rotary or straight cut, and wedge-pitch can be switched with just eccentric movement, and right or left-hand coiling can be switched with the program. This reduces time-consuming work such as the attachment and removal of slides, so productivity is improved.

3. Improves work efficiency with original program development

With the MNO2 program specifically designed for the spring forming machines, it is possible at a glance to know the program flow, operating status of each axis, inputs/outputs, and jumps. The navigation system functions and touch panel specification greatly improves operability. This system makes it easy to create programs and reduce setup time. Additionally, by utilizing IoT, the operating status of the machine can be monitored on devices such as a smartphone or computer, and periodic maintenance using the preventive maintenance functions contributes to improved production efficiency.

4. Space saving

The optional compact automatic wire stand MK-1 can be mounted on the rear of the machine, contributing to space savings during installation. Even though it is equipped with 13 axes, the WH-2A has a machine size equivalent to the SF-1A 5-axis CNC single-point coiling machine for ultra-fine wire.

■ **Specifications**

Model name		WH-2A
Wire diameter	mm	ø0.03 - ø0.2
Maximum coil outer diameter	mm	ø8
Standard number of axes		13
Net weight	kg	410
Control device		Windows
Software		MNO2

Reference

Product information for the WH-2A.

https://products.amada.co.jp/products/product/?productid=id402028&language=2

Processing scene movie for the WH-2A.

https://www.youtube.com/watch?v=OV_iJ-LV0hk

End

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