

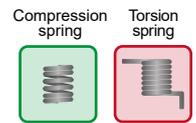
SH-3A

MEC 8-AXIS CNC SINGLE-POINT COILING MACHINE

For wire diameters of $\varnothing 0.08 \sim \varnothing 0.3$ mm

Equipped with a torsion attachment and an initial tension servo motor as standard features, this machine can form push, torsion, and elliptical springs.

The 3D coiling point moves freely, improving operability and allowing high-speed production.



Features

8-axis control with an emphasis on operability

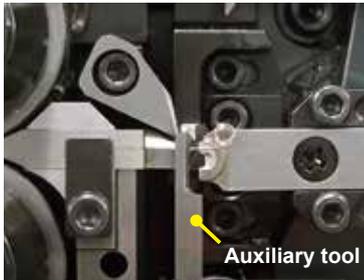
- The 8-axis control is equipped with feed, cut, pitch, outer coil diameter point, torsion, and initial tension functions and MSD sensors as standard features.
- The standard MDS contact sensors allow for free length measurement. Servo motor control enables measurement in 0.001 mm increments. (Capacitance length detector is available as an option.)
- The separation of the cut and torsion axes improves production speed and makes setup easier.
- Using the bender assist tool makes 3D torsion spring processing possible.

Support for IOT

The operating status of machine can be monitored through mobile phones or computers, and regular maintenance with preventive maintenance functions can contribute to improved production efficiency.

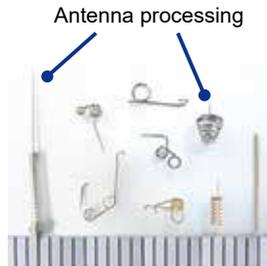
Main options

- The 3D bending attachment enables high-speed, high-precision three-dimensional bending.
- Capacitive or image sensors can also be installed.



Auxiliary tool

With attaching the auxiliary tool, it is possible to expand the processing range and improve the production speed.



Antenna processing

Small torsion spring samples processed with SH-3A

Improved operability with the MNO2 (MEC New Operation 2) programming software

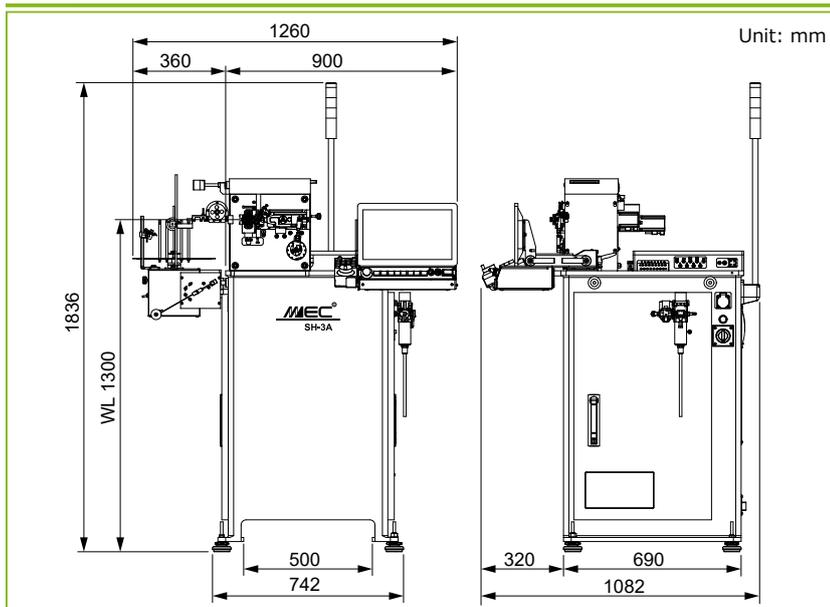
- The MEC original MNO2 software easily organizes important statistics about the machine, including program flow, operating status of each axis, inputs/outputs, jump, etc., as with our other spring machines.
- The coil number program allows to easily change feed, pitch, outer coil diameter, and initial tension on the advanced pitch diagram screen, making it easier to adjust basic coils.
- Cylinders, tapers, barrels, and double-taper springs can be processed just by inputting their specifications in the program.
- The taper of a spring can be fine adjusted easily with a numerical value between 0 and 100, such as bowl, straight, and mount types, just by changing the taper coefficient.
- Production is controlled easily with the addition of the automatic function of coil length correction, based on the MSD sensor length measurement method, and the multi-functional production manager system.



Coil number program (cylindrical coils)

The program editing function has greatly evolved, and the navigation system function and touch screen make it easier to create programs and shorten the setup time.

Specifications



Unit: mm

Machine name	SH-3A
Wire diameter	ø0.08 ~ ø0.3 mm
Wire diameter with holder for ultra-fine wire (optional)	ø0.03 ~ ø0.08 mm
Outer coil diameter	ø10 mm
Index	D/d 4 or more
Feed axis*	0.0001 mm
Max feed speed	85 m/min
Cut axis*	0.001°
Pitch axis*	0.0001 mm
Point axis*	0.0001 mm
Torsion axis*	0.001°
Initial tension axis*	0.0001 mm
Arbor axis*	0.0001 mm
3D bending servo axis* (optional)	0.001°
Solenoid valves	4 pcs (Max 8 pcs)
Max air pressure	0.5 MPa
Power source	3-phase AC 200V, 15A
Net weight	380 kg
Control device	Windows
Software	MNO2
Display	15.6" Full HD touch screen
External memory	USB Thumb drive
Temperature	5 ~ 40°C

*Resolution: Program input unit, which does not represent accuracy. Specifications are subject to change without notice for product improvement.

