CLS-10A

MICC 7-AXIS CNC EXTENSION SPRING MACHINE

For wire diameters of ø0.2 ~ ø1.0 mm / ø0.0078" ~ ø0.0393"

Coordinated control of coiling and hook end raising processes achieves stable continuous high-speed production

The automatic programming and automatic outer coil diameter correction functions of the MPS (MEC Program System) make it easy to process various hook shapes.





Features

High-efficiency production with coordinated control

Coordinated control linked to the extension spring processing can simultaneously process functions such as coiling, raising hooks on both ends, and discharging, allowing for stable high-speed production.

Improved operability with MEC Program System MPS

- The program editing function has greatly evolved, making it easy to create programs with various hook shapes and reducing setup
- Due to the servo motor controlling the coiling point, the program adjusts initial tension and diameter, forming for wires of different diameter, and U hooks.
- The transfer unit controlling the clamp by programming enables it to stop before crashing when swinging.
- Coil end is measured by the coil end alignment sensor. Outside diameter can be adjusted automatically.
- The MPS 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 multi-function production management system gives easy-tocontrol production.



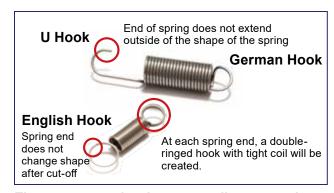
Dual points area for right hand coils Simple & user-friendly

Improved quality with double feed roller and 7-axis

- Due to the introduction of a double feed roller, feed pressure load applied to the wire is reduced, making stable coiling possible.
- The 7-axis control gives easy control over feed, point, initial tension, cam, transfer, and clamp. The camshaft drives pitch, arbor front/rear, cut, cut front/rear tooling, and tooling slides
- The cutting tool is able to move backward to prevent long stroke overshoot.
- The tooling unit raises both coil ends to form hooks in one maneuver. The angle and spaces clearance between hook and boil are equally the same on opposite sides, with high accuracy.
- The tooling unit consists of a base, squeeze, hook, end press, and off-bending tools. The end press and off-bending tools adjust automatically, making it easier to form German and U hooks.

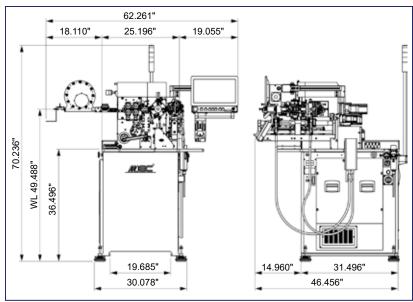
Main option

The automatic measurement system "IS-1X" by image processing and various laser sensor units enable advanced measurement of outer coil diameter, hook shape, space, etc.



The program makes it easy to adjust extension springs.

Specifications



^{*1:} May vary depending upon wire diameter.

Specifications are subject to change without notice for product improvement.

Machine name	CLS-10A
Wire diameter	ø0.2 ~ ø1.0 mm (ø0.0078" ~ ø 0.0393")
Outside diameter	ø1.5 ~ ø12 mm (ø0.0590" ~ ø 0.4724")
Index*1	D/d 4 or more
Closed coil length*2	WD x 12, ~ 100 mm (~ 3.9370")
U hook length	Max 15 mm (0.5905")
Feed axis*3	0.001 mm (0.00004")
Feed speed	Max 393.701 ft/min
Point axis*3	0.001 mm (0.00004")
Torsion axis*3	0.001°
Initial tension axis*3	0.001°
Cam axis*3	0.001°
Transfer axis*3	0.001°
Clamp axis*3	0.001°
Solenoid valve	Max 8 pcs (Installed)
Air pressure	0.3 ~ 0.5 MPa
Power source	3-phase, AC 200V, 15A
Net weight	1322.77 lb
Control device	Windows
Software	MPS
Display	15.6" Full HD touch screen
External memory	USB Thumb drive
Temperature	5 ~ 40°C (41 ~ 104°F)

^{*}Program input unit, which does not represent accuracy.

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^{*2:} Maximum is 5.905" when using the optional holder.

^{*3:} Program input unit, which does not represent accuracy.