

# NEW CLS-10A

## EXTENSION SPRING MACHINE

Max. wire dia. 1.0mm 7 axis New extension spring making machine  
This machine enables high speed production by  
simultaneous coiling & raising both hook ends

Various hook shapes available. Advanced model - Realized  
longer the max. body length & U hook length.

Twin-roller & correction of coiling point make reliable production.  
MPS (Mec Program System) provides multiple production control  
by easy operation.



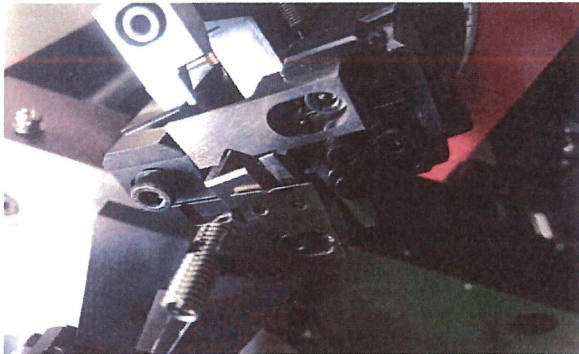
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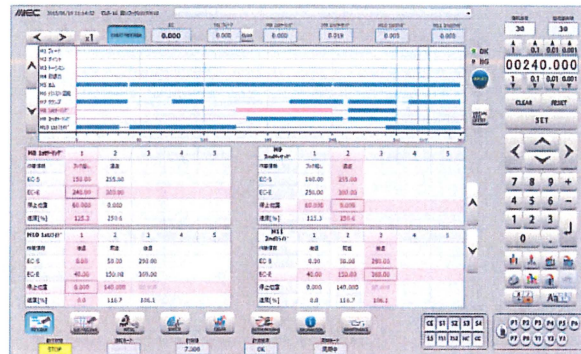
## FEATURES

- Controlled by standard 7-axis: Feed, Point, Initial Tension, Torsion, Cam, Transfer, Clamp.
- High speed production-Simultaneous operating system in each four stages (Coiling, Transfer, Both hooks forming and Ejection)
- Two sets of feed rollers reduce the load from feed pressure on wire and provide coiling stability.
- Easy operation for Coiling Point controlled by 3 axis servos. Adjustments for Initial tension & Coil diameter /Forming varied diameter hook & U hook can be made by programing input data.
- Coil end is measured by the coil end alignment sensor. Outside diameter can be adjusted automatically.
- Cutting tool is able to move backward to prevent from long stroke overshoot.
- The transfer unit controlled by program enables to stop rotation of transfer unit .This realizes easy U hook forming.
- Tooling unit raises both coil ends to form hooks in one maneuver. The angle and space clearance between hook and coil are equally the same on opposite sides with high accuracy.
- The tooling unit consists of base, squeeze, hook, end press and off bending tools. End press and off bending tool are respectively adjusted, It makes it easy to form German and U hook.
- Displaying all axis charts in a screen. You can comprehend Program flow, status of each axis, input-output at a glance.
- Multifunctional display for easier production control.
- Camera and Laser sensors (Options) are able to detect defective hook shapes.



**TOOLING UNIT**

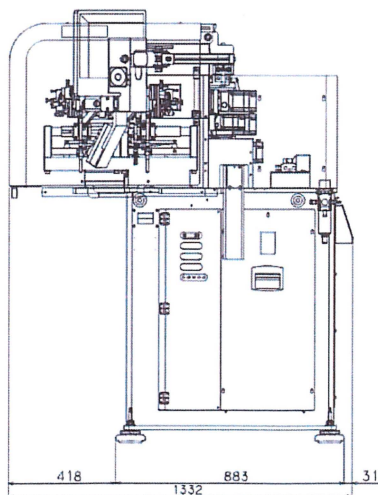
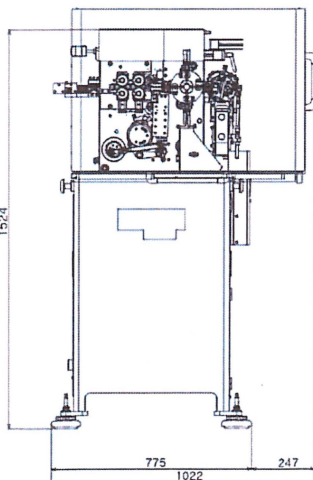
New type of new hook tool is available. This makes U hook shaping easier.



**PROGRAM DISPLAY**

You can confirm your pattern program in a chart created by inputting specifications. Easy correction is realized by displaying all axes in a chart.

## MACHINE SPECIFICATIONS



Wire Dia.	φ 0.2-1.0mm (0.078-0.039in)
Outside Dia.	φ 1.5-12mm (0.059-0.472in)
D/d	4 or more *
Closed Coil Length	W.D.×12 to 5.9055in (150mm) *
Max. U Hook Length	15mm
Feed Axis	Resolution 0.001mm(0.00004in) Max. Speed 120m/min(393.700ft)
Point Axis	Resolution 0.001mm(0.00004in)
Initial Tension Axis	Resolution 0.001 deg
Torsion Axis	Resolution 0.001 deg
Cam Axis	Resolution 0.001 deg
Transfer-Clamp Axis	Resolution 0.001 deg
Solenoid Valve	8 pcs
Air Requirements	0.3- 0.5 MPa
Power Supply	3-Phase, AC200V, 8A
Weight	890kg
Control Device	OS Windows
Display	15.6" touch panel
Memory	USB Memory
Ambient Temperature	0-40°C

\* Specifications are subject to be changed by wire diameter.  
There are normal accessory price lists for your machine.  
Specifications are subject to change without notice.