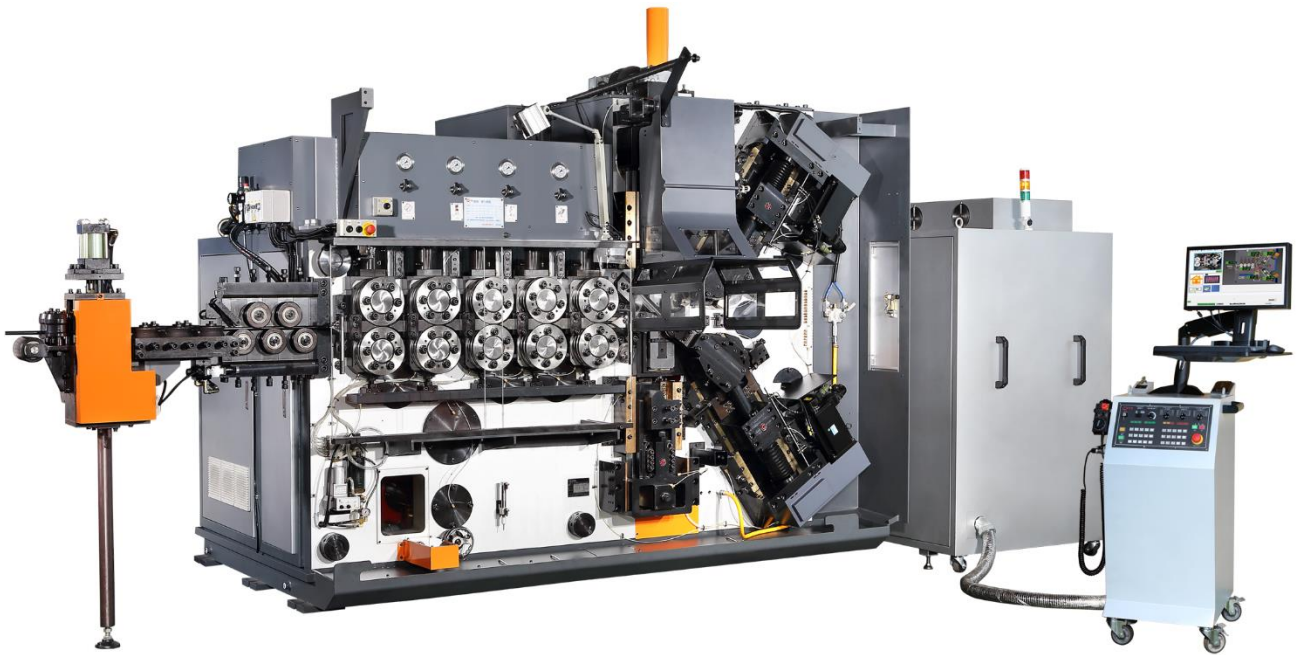
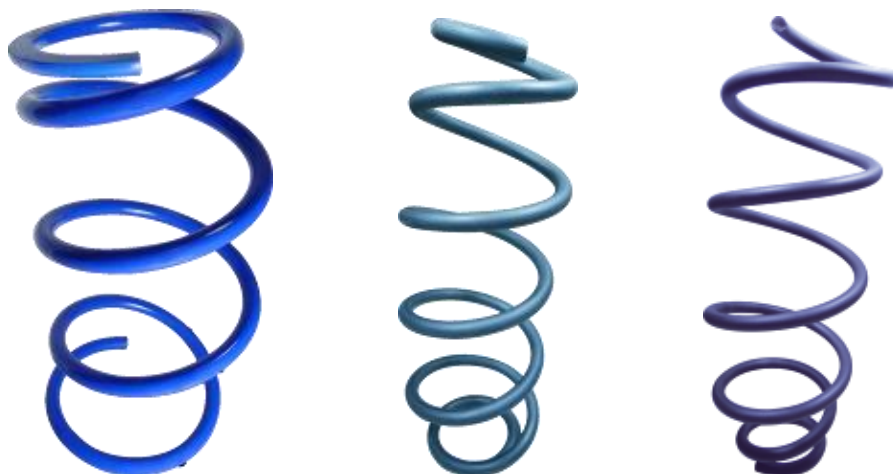


CNC SPRING COILER



YJ-200

YJ-series (5~32 mm)



A. Specification:

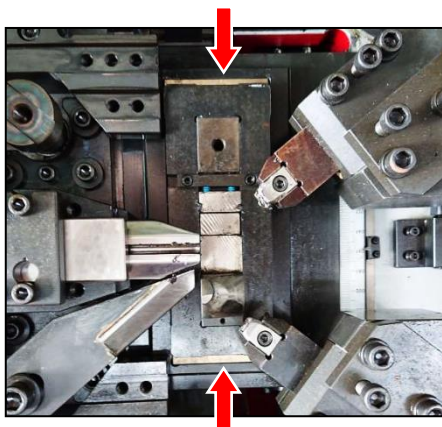
| Model No. | | YJ-120 | YJ-160 | YJ-200 | YJ-250 | YJ-320 |
|------------------------|---|---|----------|-----------|-----------|-----------|
| Wire Diameter (mm) | | 5.0~12.0 | 8.0~16.0 | 10.0~20.0 | 13.0~25.0 | 16.0~32.0 |
| Standard Axes | | 6 | | | | |
| Mini. Spring Index | | 3 | | | | |
| Feed Roller (pair) | | 4 | 4 | 5 | 6 | 8 |
| Max. Spring O.D. (mm) | | 150 | 250 | 250 | 300 | 350 |
| Power Supply | | 220V, 3Ø | | | 380V,3Ø | |
| | | (Transformer 380/400/415/440V is available) | | | | |
| Machine Dimension (mm) | L | 3600 | 4500 | 4800 | 5800 | 8100 |
| | W | 2150 | 2200 | 2200 | 2300 | 2900 |
| | H | 2300 | 2610 | 2610 | 2820 | 4000 |
| Machine Weight (kg) | | 10000 | 17000 | 18000 | 25000 | 32000 |

※ Reference Tensile Strength (N/mm²) for Oil Tempering Wire

| Model No. Wire Diameter | <i>EJ-120</i> | <i>EJ-160</i> | <i>EJ-200</i> | <i>EJ-250</i> | <i>EJ-320</i> |
|----------------------------|---------------|---------------|---------------|---------------|---------------|
| 5 mm | ≤ 2300 | ---- | ---- | ---- | ---- |
| 8 mm | ≤ 1800 | ≤ 2000 | ---- | ---- | ---- |
| 12 mm | ≤ 1400 | ≤ 1800 | ≤ 2000 | ---- | ---- |
| 16 mm | ---- | ≤ 1300 | ≤ 1500 | ≤ 2100 | ≤ 2100 |
| 20 mm | ---- | ---- | ≤ 1300 | ≤ 2100 | ≤ 2100 |
| 25 mm | ---- | ---- | ---- | ≤ 1600 | ≤ 2100 |
| 32 mm | ---- | ---- | ---- | ---- | ≤ 1100 |

B. Machine Design:

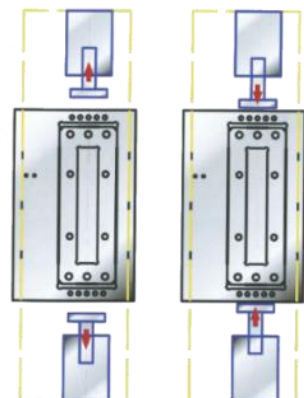
Press down tightly

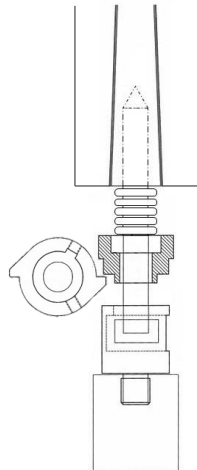
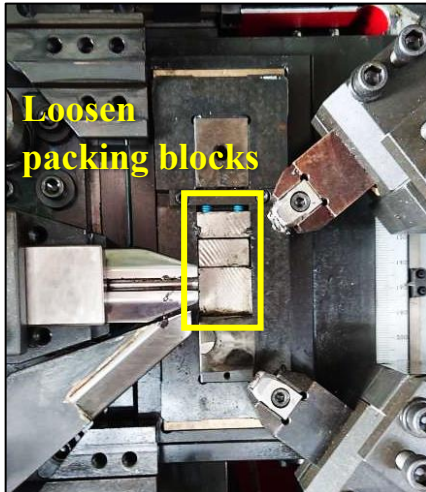


Push up tightly

● Jack-like Hydraulic Device

It is available to clamp and press tightly the arbor seat on top and bottom. The arbor also takes a press with force, both of which are giving proper support by oil hydraulic and absorbing impact force from cutting.





● Hydraulic Hammer

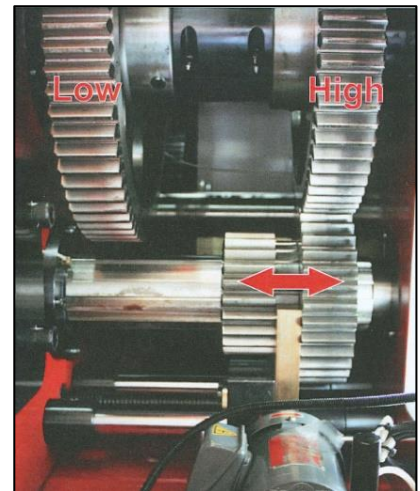
One of the packing blocks is jointed with the hammer system in the arbor seat. The hydraulic hammer is in rotation to hit the hammer system by using oil hydraulic, which makes it keep striking until all the packing blocks are loosen. That way will have the arbor changed more easily.

● Dual Gear Design

It is available to switch two speed modes with gears. One is for general springs producing at the gears of high rotation. The other is low rotation in increase torque for producing springs with smaller spring index.



Gears Switch Box



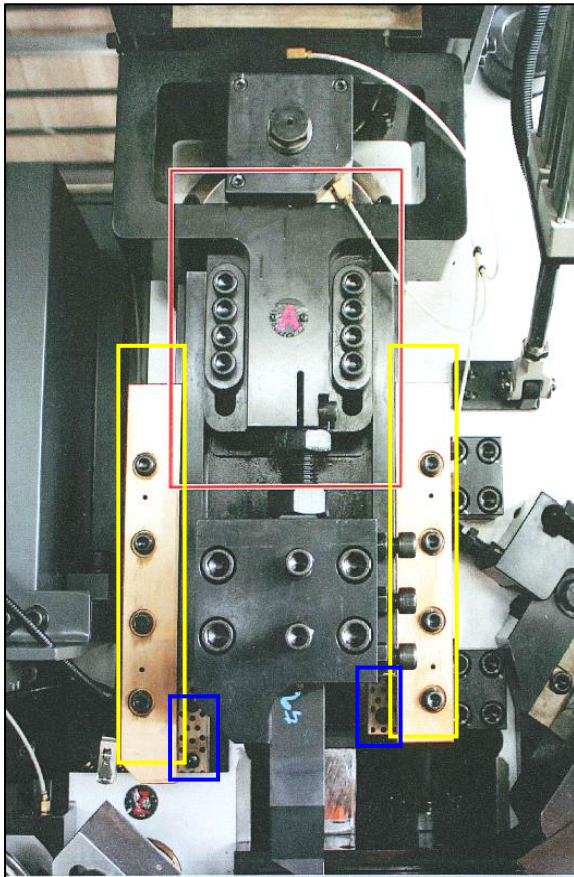
Switch Gears

| Model | YJ-120 | YJ-160 | YJ-200 | YJ-250 | YJ-320 |
|--------------|--------|--------|--------|--------|--------|
| Low (m/min) | 38 | 40 | 40 | 32 | 27 |
| High (m/min) | 76 | 55 | 55 | 65 | 55 |

● Hydraulic Leading & Feeding

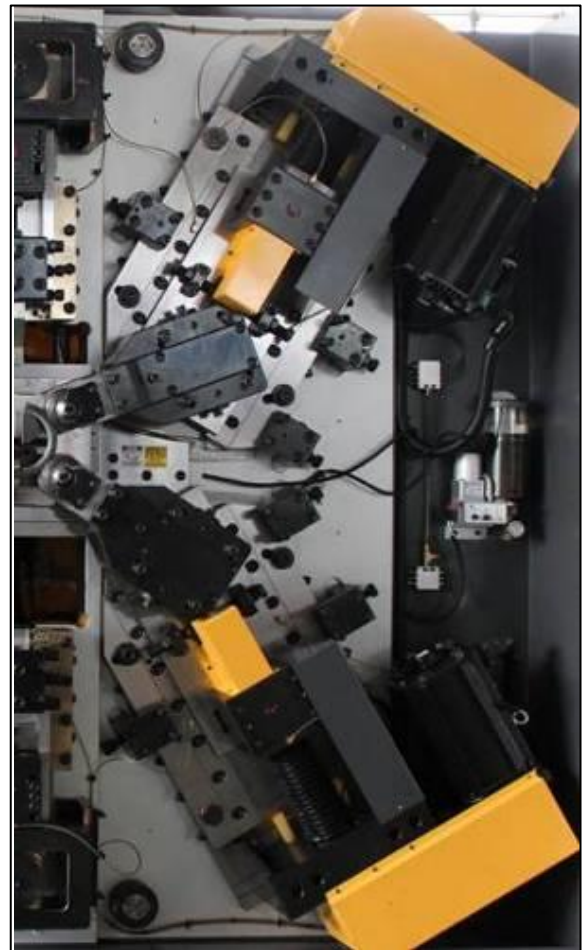
With oil hydraulic, the straightener leading wire and feeding wire to the feeding rollers can be in easy changeover





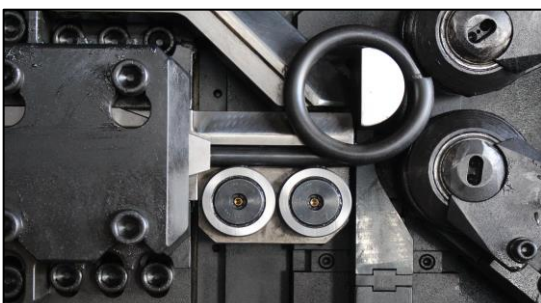
● Enhanced Cutting Force

The cutter holder has rigid structure to enhance cutting force and endurance. The noise is down to 95 decibels only. The cutting slider is built in brass stripes and plates, which can reduce wear loss, prolong usage life, enhanced stability in cutting.



● Accuracy Coiling Arms

The arms with cam-less design are driven by two independent servo motors. The features are without spanner adjustment, quick shift for L/H & R/H coiling. Equipped with ball screws of global standard with high accuracy. The production is stable and easy for maintenance.

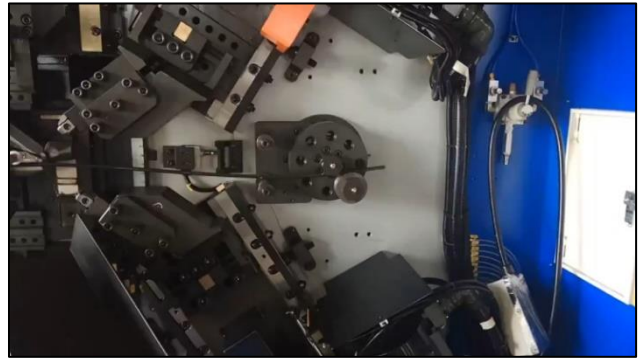


● Composed Wire Guide (option)

Equipped with bearings of wear resistant does not damage wire because their rotation makes friction coefficient small. The stainless-steel wire getting prone to scrape will be most suitable. The combination design supports to replace a worn part individually.

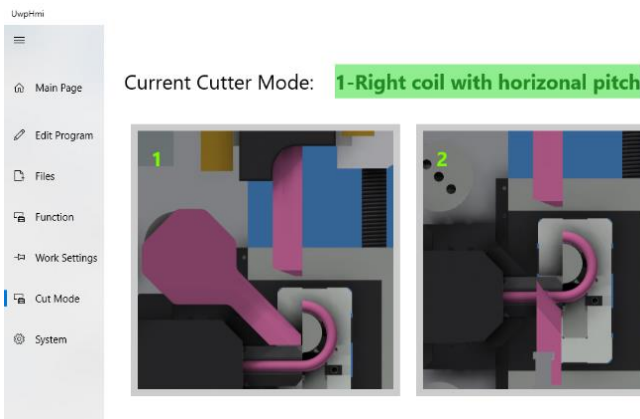
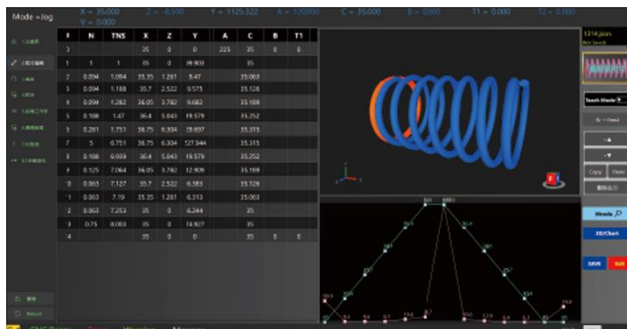
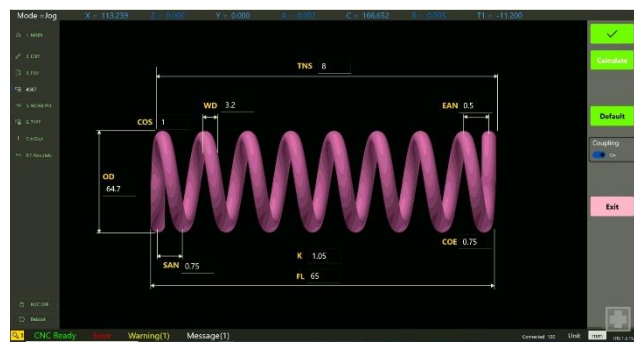
● Auto First Coil Generator (option)

After setting another bundle of wire, the first coil can be made by the generator. The operator will not take much time and effort to bend the first coil on the arbor.

**C. Feature:**

- Standard 6 axes (feeding, cutter, wedge, pitch, coiling x 2)
- High rigid structure and simple transmission for stable output
- Jack-like hydraulic device to champ the arbor seat for absorbing impact force
- Hydraulic hammer for easily changeover of the arbor
- Dual gear design to switch low/high speed for different torque demands
- Yaskawa advanced servo system and Omron/Schneider electricity parts
- Yaskawa Mechatronlink Controller
- Comply with Industry 4.0 data output, and real-time production information
- Hydraulic leading and feeding for easy changeover
- Enhanced cutting force at the cutter holder for stability in cutting
- Setup tools are made by carbide, SKD11 and H.S.S
- Cutting mode comes in straight cut and twist cut
- Quick shift in Right hand/Left hand coiling
- Patented spring software with touch screen based on Windows 10 OS
- USB device available for loading and saving spring program
- Auto edition programming for easily setting up spring program

D. Touch Screen with Win 10 OS Spring Software:

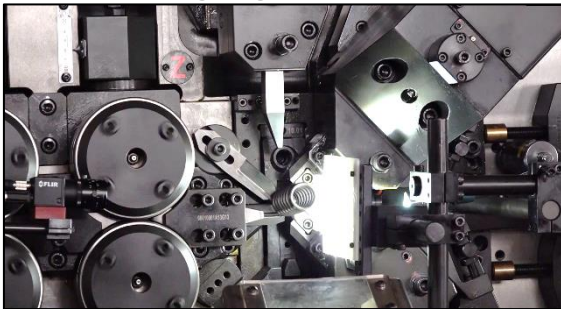


- Industrial computer with SSD
- Windows OS Internet connection for remote service
- LAN connection for integration of network resource
- Friendly graphical interface and chart analysis for OD, pitch and feed
- Program generator for straight, conical, barrel, hour-glass, banana and torsion
- 3D spring preview for indicating programming steps
- Spring coils and feed length analysis
- Safety key for security control
- Tool position record



E. Optional Tooling:

- Full set of standard tooling, included feed roller, wire guide, arbor, coiling tool, pitch tool, wedge tool, cutter, etc.
- Customized tooling for torsion spring, flat spring, and ovate wire spring

**F. Optional Accessory:****- Camera gauge and sorter**

Software



Lens Set



Sorter



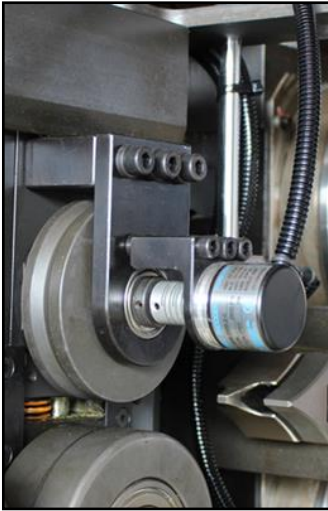
Measure and compensate pitch/length of springs.
Minimum accuracy is ± 0.03 mm.

- Initial Control Tension Device

Individual axis of initial tension device enables the adjustment of the different initial tension conditions in production cycle, and available for upper and lower slides



- **Wire Slippage / Painting Detector / Safety Cover**



- **Automatic Pay off (Decoiler)**



2000KG



2500KG

G. Safety & Maintenance:

1. Industrial heat exchanger
2. Temperature monitoring system
3. Phase & NFB protector and noise filter
4. C4 emergency stop sensor
5. Auto lubrication system
6. Working timer

