

# SF-1

## CNC 1POINT COILING MACHINE

Available for ultra fine wire less than  $20\ \mu\text{m}$  in diameter  
Feed roll of 16mm in diameter & Ultimate short Wire guide of 6mm in length  
Enable to expand work range of ultra fine wire products  
Mec New Operation system gives  
User-friendliness, gaging function, & multi-functional production management  
Comes equipped with Motor sensor "MSD-1" that can gage 1/1000mm



### ORII & MEC CORPORATION

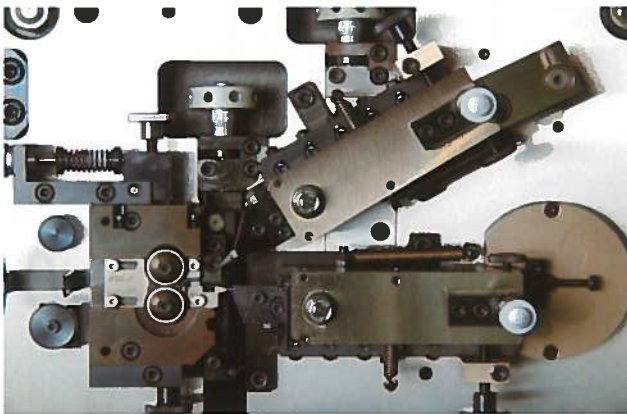
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**FEATURES**

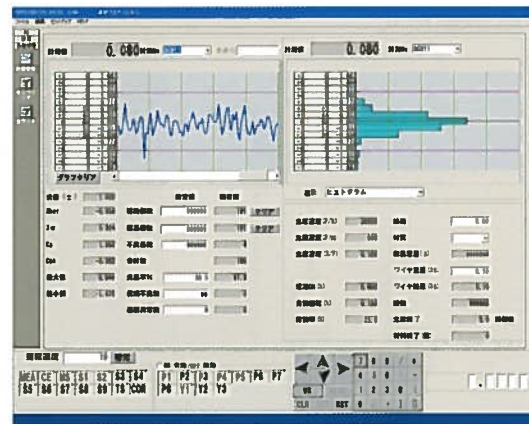
- Reviewed all mechanisms; Feed axis, each slide, adjustment mechanisms and so on, and achieved high resolution of 1/1000mm for each operation.
- With feed rolls of 16mm in diameter and ultimate short wire guides of 6mm in length, products with ultra fine wire of 20 μm or less in diameter and also tight D/d index coiling can be formed stably.
- With Initial tension axis as option, initial tension force can be controlled.
- Fitting mechanism is standard that wire guides are fit based on feed roll position. Moving fitting position of newly designed arbor and pitch tool unit makes an adjustment of arbor position for wire guide.
- Unchanging columns on program screen for all axis enables to grasp program flow and each axis status by left-right scrolling.
- Necessary data entered in the high precision auto program are converted to form desired spring parts such as standard cylindrical spring and conical spring.
- For easy-to-operate, Programs for Gaging, Coil end control, Input/Output, Counter and so on are set up on purpose-built screen separating from Main Program.
- New gaging device, MSD-1 that measures free length using contact type sensor and positioning function of the servomotor, is equipped as standard. It enables to measure 1/1000mm for fine wire products, and its measurements displayed graphically can be applied for production management.

**MOTOR SENSOR SYSTEM (PATPEND)**

- Comes equipped with "MSD-1" that measures free length using contact sensor for positioning servomotor. 1/1000mm that is too small unit to be measured by conventional device can be measured by this system, and results will be displayed with graph that can be used for correction and production control.



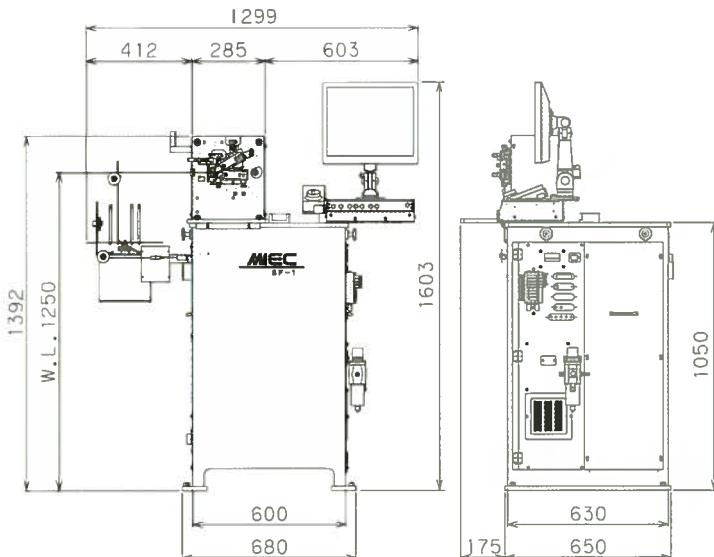
Coiling work with 6mm length wire guides



Production Control Screen

Real time display with Line graph, Histogram, Standard deviation, Process capacity, Quantity, Speed Remaining amount of wire material and so on

**MACHINE SPECIFICATIONS**



|                               |              |   |
|-------------------------------|--------------|---|
| Capacity                      | Wire Dia.    | φ 0.016~0.1mm                             |
|                               | Outside Dia. | φ 2mm                                     |
| Feed Axis                     | Resolution   | 0.001mm                                   |
| Cut Axis                      | Resolution   | 0.001°                                    |
| Pitch Axis                    | Resolution   | 0.0001mm                                  |
| Point Axis                    | Resolution   | 0.0001mm                                  |
| Initial tension Axis (Option) | Resolution   | 0.0001mm                                  |
| Solenoid valves               |              | 4pcs (Max 8pcs available)                 |
| Service air pressure          |              | Max. 0.5MPa                               |
| Power source                  |              | AC200V, 3-phase, 15A                      |
| Net weight                    |              | 400kg                                     |
| Control device                |              | Max. 9-axis controllable by OS Windows XP |
| Display                       |              | 17" TFT color LC display                  |
| External memory               |              | USB thumb drive                           |
| Service Temp.                 |              | 0~40°C                                    |

Specifications are subject to change without notice.