TM-3II

CNC MULTI-AXIS SPRING FORMER with rotary tooling table

The rotary tooling system gives stable wire line
Evolved in to ultimate forming machine suitable for ultra fine wire
There is no dead zone, and constant position of tooling is kept
with auto-compensation while the table is turning
MNO (Mec New Operation system) equipped controls operation, gauging and
multifunctional production management

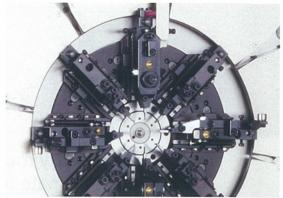


TOSAG Engineering AG
Fuchsweidweg 12, CH-4852 Rothrist
Tel. +41(0)62 794 38 28, Fax +41(0)62 794 14 58
www.tosag.ch philipp.schaerer@tosag.ch

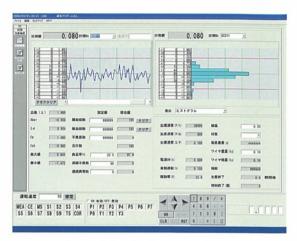


Features

- Tooling table equipped with 8 forming slides turns around a guill in the center at high speed. Slides can be set up at any angle for coil, and setup and shape adjustment can be made easily.
- Newly developed 1motor-for-twin slides system makes it possible to form at any angle for no dead zone.
- Tool position is unchanging by auto-compensation even though tooling table turns. As a result, no need to re-set up stroke even forming direction is corrected.
- Position setup follows slide number, and no need to change drive motor number even though table rotation angle is changed.
- Modification of quill height from tooling table to 21mm from 2mm of TM-3 improves operation drastically.
- 48 mm length wire guide available that is 7mm shorter than that for conventional TM-3.
- RR servo slide and English hook slide are available as option.
- Program screen consists of all-axis always displayed and other cells movable by vertical scroll, and Program flow and each axis operation can be recognized with one look.
- Easy to make long program and also shorten setup time with multifunction; jump, 1 cycle/Pause, changing operation mode during operation, auto-cut and so on.
- Gauging, Coil end control, Input/Output and such program screen comes on independently.
- Motor Sensor system is equipped on each slide. Contact sensor is applied to specified drive motor's positioning function, and it measures free length, outside diameter, leg angle and such at 1/1000mm resolution same as capacitance gage. And also, graph display and correction control are available.



Tooling table without dead zone



Graphs and Production control items are displayed in real time.

Machine specifications

| Wire dia. | φ0.05~0.3mm | | Control device | Max. 16-axis to be controlled by |
|----------------|----------------------------------|-----------------|----------------------|----------------------------------|
| Index | D/d 4 or more | | | computer – OS Windows XP |
| Twirl distance | Radius 4mm(15mm to machine face) | | Display | 17" TFT color LC Display |
| Slides | Body slide | 1 unit | External memory | USB memory |
| | Bending slide | 3 units | Service Temp. | 0~40°C |
| | Cut slide | 4 units | Power source | AC 3-phase, 200V, 20A |
| | RR Servo slide | Option | Service air pressure | Max. 0.5 MPa |
| | | 3 units at max. | Net weight | 450 kg |

