Technical Specifications

Model: Daimo-100F Auto Precision Diamond cutter

Space	Table 600mm x 800m x 800mm (W, D, H) or more
Electric	Single phases, 220V, Grounding power within 2m radius
Coolant	N/A
Remark	- Space of movement

Daimo-100F, Auto Precision Diamond Cutter

Daimo-100F is multi-functional automatic precision cutter and can be used in various ways. Daimo-100F is an intelligent cutter to minimize a material damage. Daimo-100F is very useful for precision cutting and accurate microstructure observation.

Features

- **Graphical design and usability using 5.6" Touch LCD**
- **Manual push switches (Start, Stop, Water ON/OFF, Joystick speed HIGH/LOW)**
- **Specimen damage minimization to measure load for cutting wheel automatically**
- **Absolute and related position moving from stage movement**
- **Current stage position display**
- **Precision position control (Unit: 1㎛)**
- **Motor auto calibration – RPM optimization**
- **Wheel spin direction set-up**
- **Automatic cutting oil supply from outset experiment**
- **Various thickness specimen cut-off in the light of wheel thickness and size that user wants**
- **Convenience experiment using ZERO set-up**
- **Sequential cut-off using schedule set-up**
- **Convenience stage control using joystick (X-axis, Y-axis)**
- **Joystick speed set-up**

- **Cumulative usage time display**
- **Set-point save and load (Maximum 10 storage space)**
- **Expected useful life of a wheel to input the wheel information**

Specification

1. Main Frame

- Size: 560mmW x 760mmD x 330mmH
- Power: 220V, 50~60Hz, Single phase, 5A
- Emergency stop switch
- Basic grip: Saddle type standard grip
- Probable cut-off specimen size: 40Φ (7" wheel usage)
- Transparent acrylic cover

2. Cutting part

- Motor: 750 W BLDC motor
- Torque: 24.3 kgf-cm
- Wheel speed: 300~ 5,000RPM
- Key-pad type spin speed input
- Operating time display
- Auto calibration – RPM optimization
- Self-test
- Wheel shaft arbor: 12.7 mm
- Wheel size: 4, 5, 6, 7 inch in diameter
- Sequential cut-off
- Soft touch button
- Specimen position control using joystick

3. X, Y-axis part

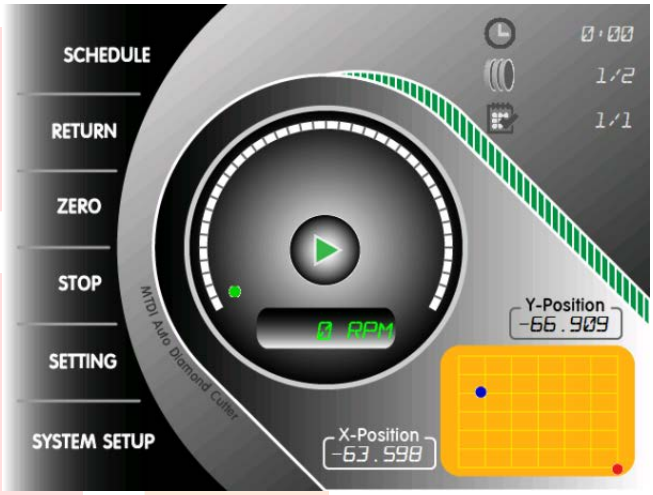
- X-axis, Y-axis Motor: Micro Stepping motor
- Convenient movement using joystick
- X-axis moving distance: 60mm (0~30mm/sec, 0.001 mm/step)
- Y-axis feed rate: Fixed 0.1mm/s
- Maximum Y-axis moving distance: 150mm (0.1mm/step)
- Y-axis feed rate: 0.000~30mm/s
- Y-axis motor resolution: 0.001mm

- Force limit: Maximum force set percent (%)
- Reverse distance set-up
- Retract function: 0.001~1mm/s
- End limit sensor

4. Cooling unit

- Capacity: 4 L Damper reservoir
- Flow: 3,000ml/min
- Cooling method: Circulation & injection type by independence pump.

5. Controller



- Control panel: Touch screen type
- Touch screen
  : Display device - TFT LCD
  : Size - 5.6″
  : Resolution - 640 x 480
  : Brightness - 350cd/m^2
  : Communication – RS 232C
- Database: 100 storage space
- Sleep mode (Power down, Logo display)
- Controller: One-chip micro processor
- Automatic breaker: Specimen cut-off completion, Cover open
- Automatic set-point saving
- Automatic sequential cut-off by scheduled step using cycle cutting control
- Feeding rate control
- Specimen protection using specimen load set-up
- Cut-off position: Digital display (Unit step: 1㎛)
- Emergency stop
- Display on touch screen
- Schedule, Current X Y-axis position, Total cut-off count, System set-up, Cut-off environment set-up, Status bar, Spin speed and graphical display, Cut-off time required, etc.
- Basic consumables: Cooling oil 1 liter, Stick for wheel change

6. Service and Remark

- 1-year warranty
- Operation manual (1copy)
- Installation and education at the shipping place
- Tool for wheel change (Spanner, Pin)
- Wrench to mount specimen
- Tool box for storage
- Cut-off oil: 0.5liter/btl
- User order selection: Diamond wheel

Option Part

1. Plank cut-off zig (PCB, Metal)

- Specimen mounting device
- Specimen cut-off size control
- Aluminum plate & Anodizing

2. Y-axis Rotation

- Motor: Step Motor
- Rotation Speed: 0.1 RPM ~ 100RPM
- Key-pad type spin speed input