

# MIDLAND METROLOGY LIMITED

## uCut-60 Automatic High Speed Metallographic Precision Cutter



# Product Feature & Application



**uCut-60**



**uCut-60R**

## Product Feature

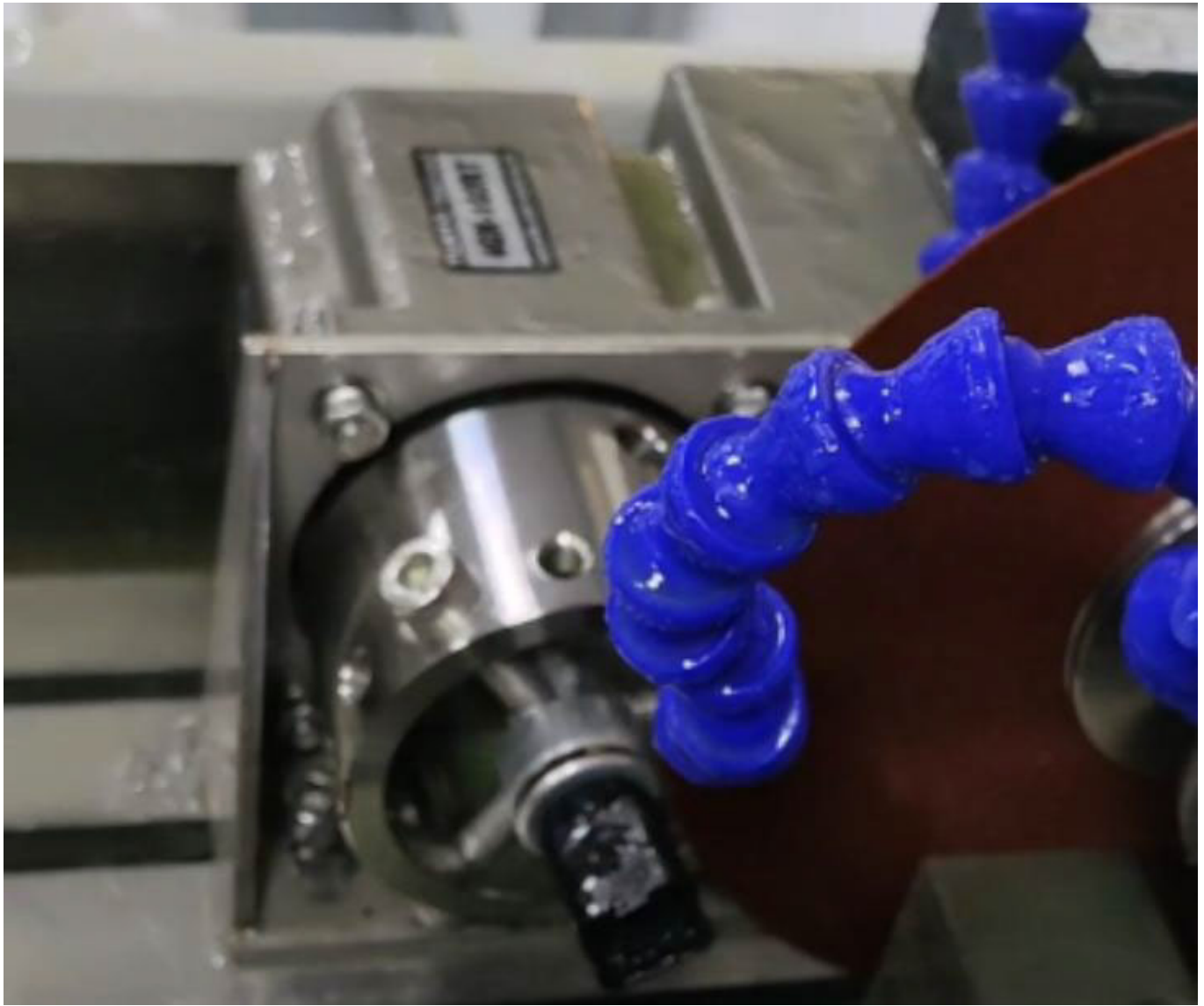
- Automatically detects sample cutting finish time, Automatically stops cutting and retracts to the initial position. Without setting the sample cutting stroke.
- The machine is cleaned automatically via the spiral nozzles in the cutting chamber. Cleaning can be switched on individually and, if required, starts automatically after each cut-off. For a clear view, it can also be switched on during cut-off operation.
- In the same process of cutting, it can be carried out according to different feeding speeds and different rotational speeds.
- Parameters can be stored, and up to 99 sets of cutting processes can be saved. The
- Parameters can be called for different material cutting without resetting the parameters each time.
- Adopts machine interface. PLC control, intuitive interface, simple operation. Customized languages can be used for user friendly operation.
- Spindle has servo motor closed loop control, overload protection.
- The large 7" touch display is ergonomically arranged and easy to operate via the user-friendly software.
- Automatic cleaning function.
- There are two cutting ways to choose a wider range of materials to adapt to the cutting.
- External circulating water cooling device.
- Closed and transparent protective cover and safety switch provide protection for the operator. Automatic sample rotation cutting, effectively reducing sample heating (uCut-60R).
- Sample collection to prevent small samples from falling off.
- Automatic/manual movement of the X-axis to achieve parallel cutting of the sample (optional).

## Product Application

uCut60 automatic high-speed precision cutting machine has high spindle speed, thin cut-off wheel and precise cutting size, which is suitable for precision cutting of small parts.

# uCut-60R Sample Rotating Cutting

Model uCut-60R Automatic sample rotation cutting effectively reducing sample heating. User can use this function to cut one sample from different position.



R-axis Rotating

# Optional X-axis Movement Design

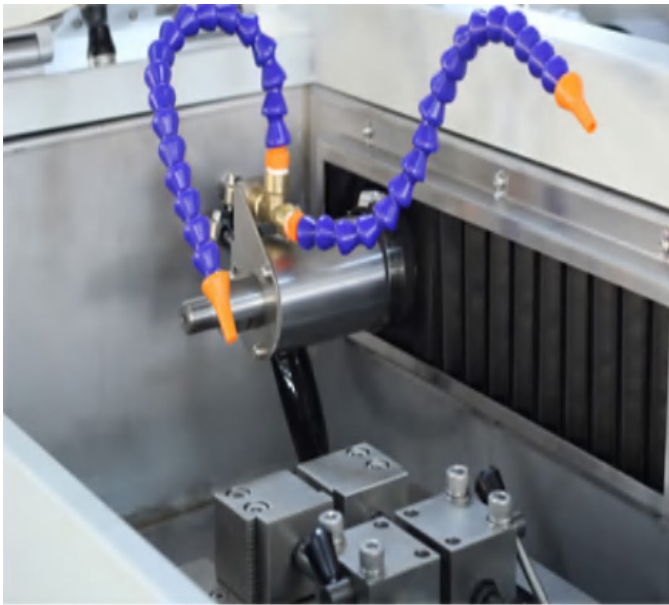
Automatic/manual parallel movement of the X-axis to achieve parallel cutting of the sample (optional).



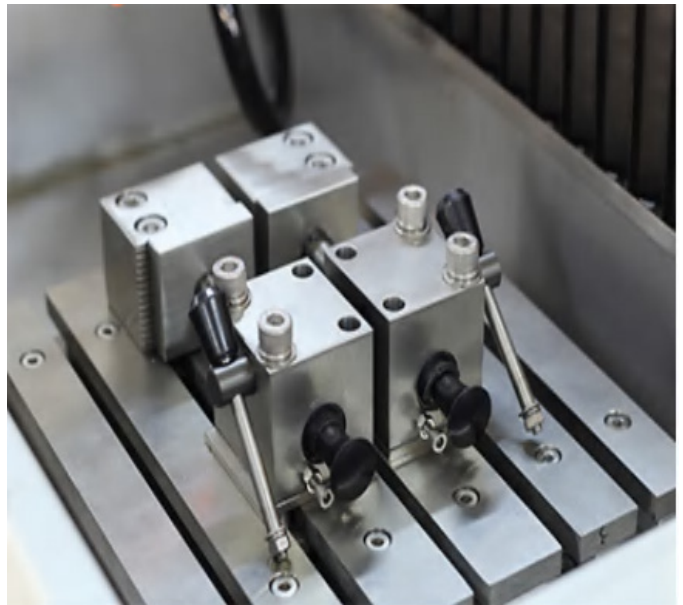
Optional X-axis Multiplicity Cutting

# User Friendly

The machine is cleaned fully automatically via the spiral nozzles in the cutting chamber. Manual machine interface, PLC control, intuitive interface, simple operation. Large 7" touch display is ergonomically arranged and easy to operate via the user-friendly software.



Cutting Chamber



Quick Fixture



Cut-off Wheel



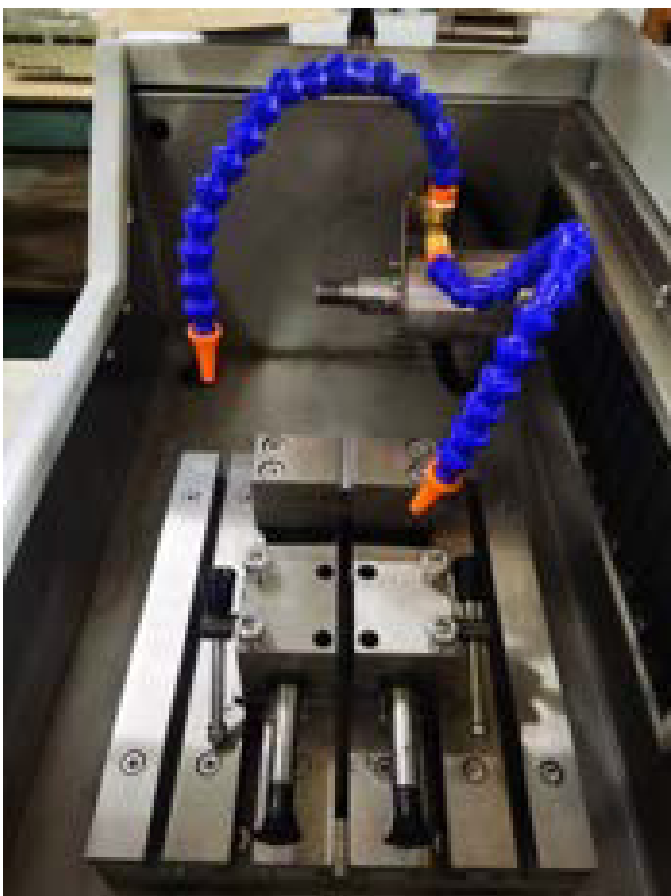
Control System

# User Friendly

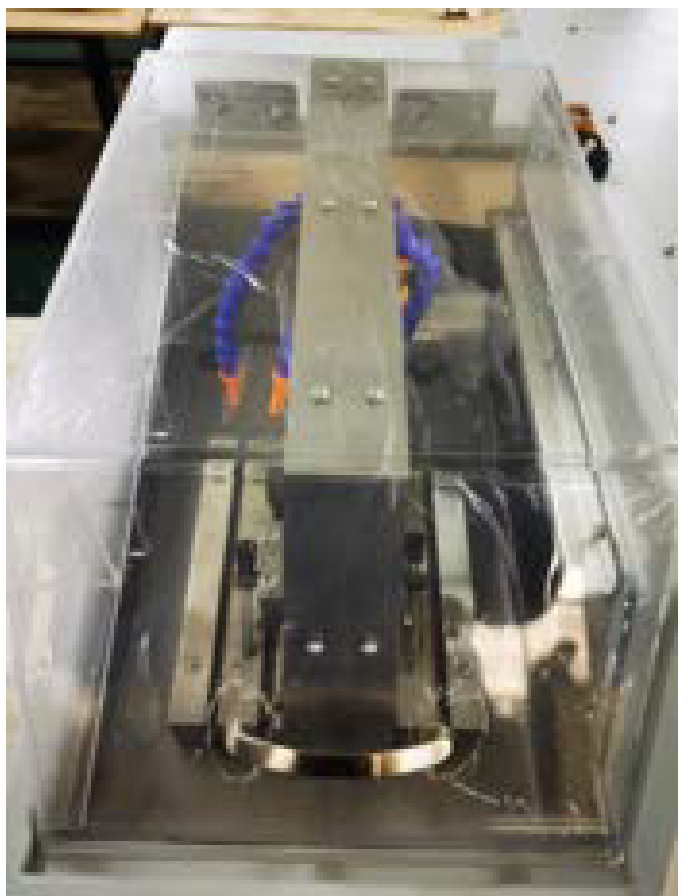
Spindle adopts servo motor closed loop control, overload protection. Closed and transparent protective cover and safety switch provide protection for the operator.



Closed Loop Control Spindle



Chamber Under Cover

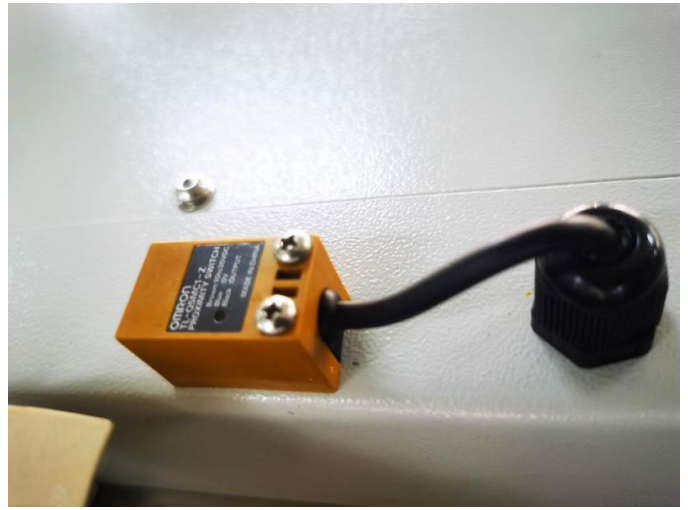


Protecting Cover

# User Friendly



Water inlet/outlet



Safety Switch



Power on/off and Emergency Stop Button

# Ordering Information



uCut-60 Metallographic Precision Cutter  
uCut-60X Metallographic Precision Cutter(With X-axis Movement)



uCut-60R R-axis Metallographic Precision Cutter

# Technical Specification

Item	Specification
Cut-off Wheel	Standard Size 200 x 32 x 0.9mm, Diamond/CBN/Resin
Spindle Speed	500-3000r/min (Optional 500-5000r/min) Adjustable
Feeding Speed	0.01- 3 mm/s
Manual Feeding Speed	0-5mm/s
Backward Speed	0-5mm/s
Impact Cutting Distance	0.1- 2 mm
Cutting Stroke (Y-axis)	200mm
X-stage Movement(uCut-60X)	Precision: 0.01mm, Range:40mm
Maximum Cutting diameter	φ60 mm
Cutting Table Size	216x240mm(X*Y)
Maximum Clamping Length of Fixture	150mm
Maximum Clamping Width of Fixture	215mm
Servo Motor	1.5 kw
Usage Method Data	12 kinds can be Stored
Power supply	AC220V 50HZ
Mainframe Dimensions	750 * 870 * 455 mm
Net Weight	126KG

# Packing List

Item	Quantity	Item	Quantity
Open end spanner (22-24, 17-19)	Each 1	Cooling system (including water tank, water pump, water inlet pipe and drainage pipe)	1 set
6mm inner hexagon wrench	1	1L Cutting fluid	1 bottle
5mm inner hexagon wrench	1	Hose hoops 13 to 19	2
Power cord	1	Hose hoops 40-63	2
~200mm Diamond Cut-off Wheel	1	External Water Tank	1



**External Water Tank**



**Diamond Cut-off Wheel**



**Cutting Fluid**