



# MCut-65A

Automatic Metallographic Cutter  
(Cutting Capacity: 65mm)





# Product Feature & Application

## Product Feature

- Manual/Automatic operation. electromechanical separation structure is effective in protecting electrical safety and convenient in maintenance. Machine body is made of thick sheet metal, firm and stable.
- With automatic feeding, rotating speed can be automatically adjusted according to the hardness of the material to avoid blockage.
- 7 inch high-definition color touch screen, visual display and easy to operate.
- Y axis automatic intelligent feeding, the speed can be automatically adjusted according to the hardness of the material to avoid blockage.
- Z axis can be manually adjusted, which is suitable for various sizes cut-off wheels, and can compensate for the loss and thus effectively improving the utilization rate of cut-off wheels.
- With explosion-proof transparent observation window and protection of cover opening
- Adjustable LED lamp to achieve effective lighting for the whole cutting chamber.
- With double-sided quick clamp device and T slot cutting table
- Three adjustable cooling water lines can prevent sample burns
- Independent cleaning water gun for easy cleaning.
- The mobile circulating cooling water tank has effective filtration and can prevent sample burns.



**Machine Mainframe**



**Water Tank**

## Product Application

Suitable for the sample cutting of various shapes, sizes and materials, the surface of the sample after cutting is bright and flat without burns, it is the ideal equipment for sample cutting. It is suitable for various ferrous metals, non-ferrous metals, heat treatment parts, forgings, semiconductors, crystals, ceramics and rocks etc.



# User Friendly

7 inch high-definition color touch screen, visual display and easy to operate.

## Mikrosize® MCut-65A Cutting Machine

Y  
Operation  
screen

Parameter  
settings



Status  
Display

Operating  
Instruction

08:57:25

Wuhu Mikrosize Precision Instrument Co.,Ltd

Parameter setting

Cutting length	9999	mm
Cutting speed	9999	Mm / min
Spindle speed setting	9999	RPM
Coordinate zero	Light off	Cutting End Back

Debugging parameter settings

Subdivision	9999	Step / circle
Pitch	999. 9	mm/ circle
Return speed	9999	mm / min
Swing distance	9999	mm / time

Status display

Motor failure X1	OFF	Step pulse Y0	OFF
Cut limit X2	OFF	Stepping forward Y1	OFF
Back limit X3	OFF	pump Y2	OFF
X4	OFF	frequency control Y3	OFF
Emergency stop X5	OFF	lighting Y4	OFF
Door Limit X6	OFF	Motor run Y5	OFF
X7	OFF	Stepper motor stop Y6	OFF
		Failure alarm Y7	OFF

Y-Operation screen

Manually forward	main motor speed	9999	RPM	Quickly returned
Manually back	Running distance	888. 8	mm	Pump start/stop
Cut button	Remain distance	888. 8	mm	Motor start
Cutting stop	Cutting speed	8888	mm/min	System start/stop
	Continuous Swing			Motor Stop

Instructions 1

The machine can cut the general metallographic sample material with the cutting, advance and retreat, stepless speed machine equipped with a cooling device configured coolant come away cutting calories is cutting access to avoid sample overheat and burn organizations. machine uses the user-friendly design, the use of ergonomic principles. maximum features: low noise, easy to operate, safe to use is one of the laboratory sample preparation necessary equipment, grinding wheel spindle in the wheelframe bearing, electric motors connected triangular leather wheel drive and get the effective speed of the main round of the swing cut the sample in a valid location, the rocker arm swing to complete the cutting action. work on the table fast clamping device, the pressure rod can move back and forth, easy to use clamping device can be the free demolition, cleaning the work area with a fully enclosed structure, and a transparent protective cover for cutting and observed with a cooling water tank is designed for the storage of coolant, should not use tap water as coolant, cutting of rock, ceramic specimen, you must use a diamond grinding wheel before cutting (diamond grinding wheel need to special order)

Operating Instructions 2

Technical parameters:

1. Grinding wheel specification: Ø 300× Ø 32×1.5
2. Wheel speed:500-3000r/min
3. Motor power:2.2KW
4. Supply voltage:380V 50HZ
5. Dimensions:860X780X1330mm
6. Weight:110kg
7. Fixture specifications:65×65×80mm
8. Maximum cutting diameter:65mm
9. Maximum cutting height:65mm
10. Maximum cutting width:120mm
11. Cutting distance: 235mm

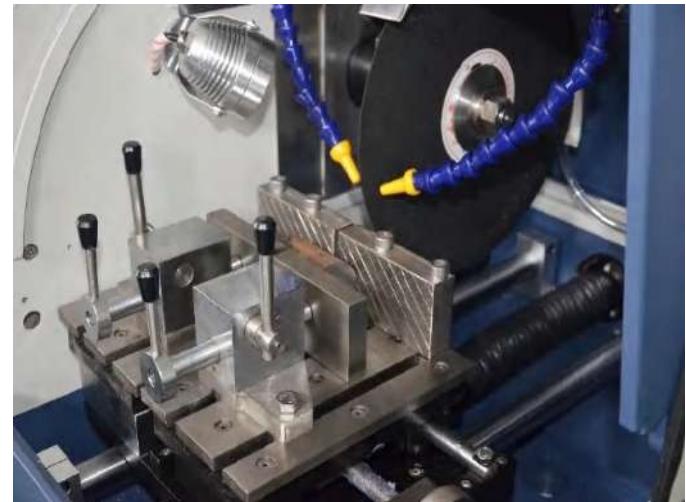


# User Friendly

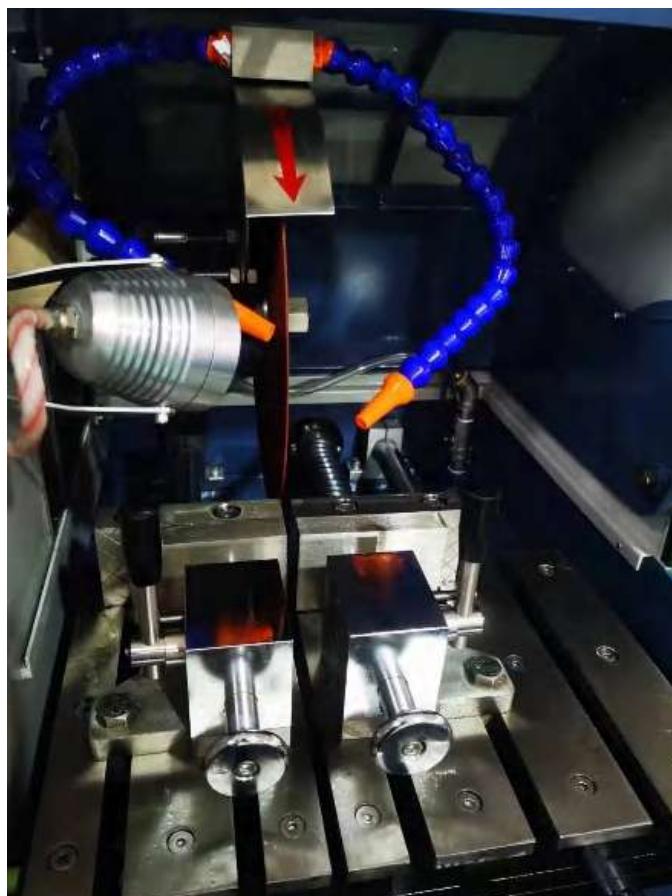
With explosion-proof transparent observation window and protection of cover opening by limit switch .Adjustable LED lamp to achieve effective lighting for the whole cutting chamber. With double-sided quick clamp device and T slot cutting table.



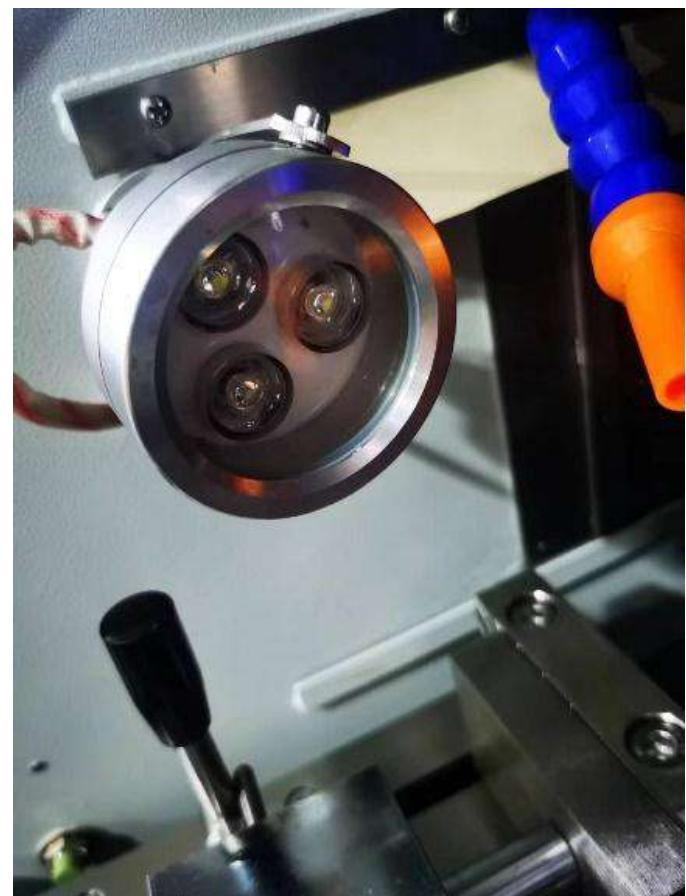
Cutting Chamber



T-slot Cutting Table&Quick Clamp Device



Adjustable LED Illumination



Adjustable LED Illumination



Transparent Observation Window



Limit Switch



# User Friendly

Y-axis automatic intelligent feeding, the speed can be automatically adjusted according to the hardness of the material to avoid blockage. Z axis can be manually adjusted, which is suitable for various sizes cut-off wheels, and can compensate for the loss and thus effectively improving the utilization rate of cut-off wheels.



Z-axis Manually Adjusted

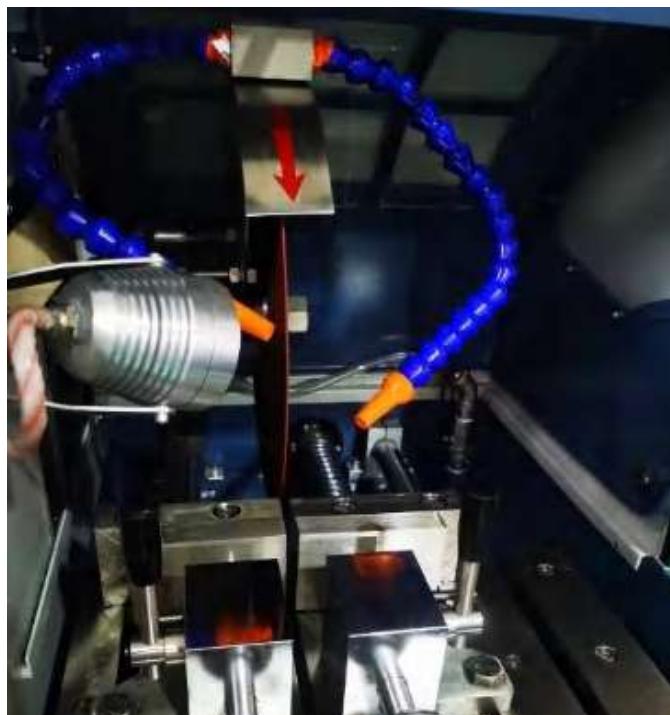


Y-axis Manual/Automatic Feeding



# User Friendly

Three adjustable cooling water system can prevent sample burns .Independent cleaning water gun for easy cleaning.The mobile circulating cooling water tank has effective filtration and can prevent sample burns.With Emergency Stop Button and effective fan heat dissipation function.



Cut-off Wheel Water Impingement



Water Tank



Water Inlet/Outlet Under Machine Chamber



Cleaning Water Gun



Emergency Stop Button



Heat Dissipation



# Technical Specification

Model	MCut-65A
Cutting Method	Manual/Automatic, Table feeding along Y axis
Cutting Mode	Continuous Cutting, Pulse Cutting
Feeding Speed	Manual / Automatic 1~240mm/min
Cut-off Wheel	Φ300×2×Φ32mm
Max. Cutting Capacity	Φ65mm
Y Axis Travel	235mm
Z Axis Travel	35mm
Spindle Speed	500~3000r/min
Motor Power	2kW
Cutting Table	350×220mm, T-slot 12mm
Clamping Device	Quick Clamp, Jaw height 60mm
Display and Control	7 inch Touch Screen
Power Supply	380V, 50Hz, 10A, Three-phase Five-wire
Dimensions	800×760×1370mm
Net Weight	280kg
Water Tank Capacity	60L
Pump Flow	25L/min
Water Tank Dimensions	565×360×600mm
Water Tank Weight	27kg



# Variable Cutting Discs Optional

Series	Name	Material	Application	Specification
Series A	Alumina Cutting Disc A2: 45~55HRC A3: >55HRC	Aluminium oxide (Brown corundum) Resin bond	For cutting of common steel materials, carbon steel, alloy steel, cast iron, unquenched steel, etc.	(250×1.2×32)(250×1.5×32)
				(250×2×32)
				(300×1.5×32)(300×2×32)
				(350×2.5×32)
				(380×2.8×32)
				(400×3×32)
Series B	Alumina Cutting Disc B2: 45~55HRC	Aluminium oxide (White corundum) Resin bond	For cutting of high-quality carbon steel, alloy structural steel, tool steel, bearing steel, stainless steel, high-speed steel and high hardness quenched steel, etc.	180×1×22
				205×1.2×32
				(250×1.2×32)(250×1.5×32)(250×2×32)
				(300×1.5×32)(300×2×32)
				(350×2.5×32)
Series C	Silicon Carbide Cutting Disc	Silicon Carbide Resin bond	For cutting of non-ferrous metal materials (copper, aluminium, zinc, titanium, cast aluminium, tungsten-molybdenum alloy, cemented carbide, etc.) and non-metallic brittle materials (glass, ceramics, rock, etc.).	(250×1.2×32)(250×1.5×32)
				(250×2×32)
				(300×1.5×32)(300×2×32)
Series D	Alumina Cutting Disc D2: 45~55HRC	Aluminium oxide (Chromium corundum) Resin bond	For cutting of high vanadium high speed steel, alloy steel, tool steel, and high toughness, high viscosity, burn-prone materials, etc.	(250×1.5×32)(250×2×32)
				(300×1.5×32)(300×2×32)
Customized	Alumina Cutting Disc(Red sand)	Aluminium oxide Resin bond	For cutting of hard ferrous metals. (60HRC)	(250×1.2×32)(250×1.5×32)(250×2×32) (300×1.5×32)(300×2×32)



# Variable Cutting Discs Optional

Series	Name	Material	Application	Specification
Ultrathin Precision Cut-off Wheel	Diamond Cutting Disc	Diamond Bronze bond	For cutting of plastics, rubber, dental orthopaedic materials, high hardness ceramics, glass, electronic components, printed circuit boards, non-ferrous metal materials, rocks, non-ferrous composite materials, etc.	(100×0.7×12.7)
				(180×0.8×22)
				(200×1×32)
				(250×1.2×32)
				(300×1.5×32)
	CBN Cutting Disc	CBN Resin bond	For cutting of iron-based metals, superalloy materials, cobalt-based alloys, nickel-based alloys, high-carbon alloys, high-speed steel, tungsten-molybdenum alloys, heat-resistant alloys, cast magnets, titanium alloys, etc.	(100×0.7×12.7)
				(180×0.8×22)
				(200×1×32)
				(250×1.2×32)
				(300×1.5×32)
	Petrographic Cutting Disc	Diamond Bronze bond	For cutting of lithofacies materials.	(250×2×32)
Saw Blade	Toothed Saw Blade	Cemented carbide	For cutting of aluminum, aluminium alloy and other high viscosity materials.	(180×1.8×25.4)
				(200×2×32)



Standard Alumina Cutting Disc



Red sand Resin Cutting Disc



Silicon Carbide Cutting Disc



White Corundum Cutting Disc



Chrome Corundum Cutting Disc



Diamond Cutting Disc



CBN Cutting Disc



Petrographic Cutting Disc



Toothed Saw Blade



# Packing List

Name	Specification	Qty
Machine Body	/	1 set
Water Tank	/	1 set
Cutting Disc	Φ300×2×Φ32mm, Resin Cutting Disc	2 pcs
Cutting Fluid	3kg	1 bottle
Spanner	36mm, 14×17mm, 24×27mm	each 1 pc
Water Inlet Pipe	Φ20mm	1 pc
Water Outlet Pipe	Φ48mm	1 pc
Usage Instruction Manual	/	1 copy



Water Tank



Resin Cutting Disc



Cutting Fluid



# Optional Accessories

Name	Specification
Clamping Device	Horizontal
Clamping Device	Vertical
Resin Cutting Disc	(300×1.5×32)(300×2×32)
Silicon Carbide Cutting Disc	(300×1.5×32)(300×2×32)
White Corundum Cutting Disc	(300×1.5×32)(300×2×32)
Chrome Corundum Cutting Disc	(300×1.5×32)
Diamond Cutting Disc	(300×1.5×32)
CBN Cutting Disc	(300×1.5×32)
Cutting Fluid	Z0703B Synthetic Cutting Fluid
Manual X-axis Function	Customized



Vertical Clamping Device



Horizontal Clamping Device