# Desktop Mill Pro Intro



## 1. Overview

Desktop Mill Pro This is a desktop 3-axis CNC machine with its compact size and powerful processing capability, it can process a variety of materials such as aluminum alloy, copper alloy and other metals, plastic, wood, stone, wax and other non-metal materials. It is very suitable for small businesses, individual manufacturers, educational institutions and laboratories.

## 2. Feature

- 2.1. **High-Performance Spindle**: 1200W high power, 24000rpm high rotation speed, water cooling, spindle runout is only 3-5um
- 2.2. **High-Precision Components**: Linear axis DC servo motor, C7 1204 ball screw ,and HIWIN MGN15 linear guides
- 2.3. **Sheet Metal Casing**: Designed to be dustproof and noise-reducing, with waterproof treatment for critical components and equipped with a cutting fluid circulation system.
- 2.4. Easy Operation: Offline controller, automatic tool leveling, MPG
- 2.5. Low Cost Manufacturing: Professional and accurate desktop manufacturing solutions
- 2.6. **Professional Technical Services**: Provides CAM programming, simulation guidance, on-site training, custom fixture design, and component upgrades.

# 3. Specs

			Mach	inery			
Packing Dimension		W88×D62×H73 cm	Packaging Weight		t	100 kg	
Equipment Dimension		W82×D56×H68 cm	Equipment Weight		ht	75 kg	
Workbench Dimension		W410×D135 mm	Workbench Max. Load		Load	20 kg	
Machining Speed		3000mm / min	*A Axis 1:5 Hollow Platform		low Platform	Reducer,Repeat Positioning Accuracy ≤0.5″	
XYZ Effective Travel		X170×Y135×Z190 mm	*A Axis Effective Travel		Travel	A: 360°	
3-Axis Machining Range		X170×Y135×Z180 mm	*4-Axis Machining Range		g Range	Ф80×L130mmH120mm	
3-Axis Machining Accuracy		≤0.02mm	*4-Axis Machining Accuracy		g Accuracy	≤0.05mm	
Ball Screw		1204 C7	Linear Guideway		,	Hiwin MGN15	
Tool Diameter & Length		ER11 0-8mm, ≤75mm	Part Fixtures			T-slot, slot spacing 80 mm, M5 T-nut	
Frame Al6061-T6 Aviation Aluminum		Protect			Stainless Steel Dustproof		
Soft Metals: Aluminum alloy,Cop   Work Material *Hard Metals: Steel, Titanium alloy		per alloy, Gold alloy,Silver alloy		Silver alloy	Non-metal: Plastic, Wood, Wax, Jade, Glass, etc		
			Elect	rical			
Drive Motor	24V DC Servo,1500rpm/min		Spindle N	lotor	Ф62mm 1200W, 24,000 rpm,Can Upgrade 1500		
Drive Power	220V Input, 24V15A Output		Control S	ystem	FOINNC M350		
Home Switch	Photoelectric Sensor		Tool Sett	er	Contact force 1.5N Repeated Tool Setting Accur		
			Soft	ware			
Control Software	e	/	Program Software PowerMill, Fusion360, NXUG, St		lill, Fusion360,NXUG,SurfMill etc		

.\*A-axis is optional

\*Steel, titanium alloys: Desktop-level CNC machines are not as efficient as aluminum alloys.

# 4. Standard & Optional

4.1. Standard List

No.	Name	Specs	Image	PCS
1	Machine	Desktop Mill Pro	/	1
2	Collet	ER11-3,ER11-6 (1.2 kw) ER16-3,ER16-6 (1.5 Kw)	/	2
3	End Mill	3mm, 6mm	/	4
4	2in Quick-Action Pliers	QKG50	1	1
5	Toad Pliers	M5	100	4
6	Press Bar	N1	/	1
7	Spindle Wrench	13, 17 (1.2kw)/17, 22 (1.5kw)	/	2
8	Hex key	5mm	/	1
9	Power cable	2 meters	/	1

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4.2. Optional List

	Name	Model	Image/Description	PCS	Price/USD
	A Avia	M1		1	\$286
2	A Axis	H1			\$458
3	Spindle	1.5Kw	/	1	\$214
4	3D Touch Probe	V6	R	1	\$47
	Frame	Cast Iron	Weight +100kg, duration 40 days	1	\$289
,	Door	Automatic	/	1	\$289
3	Collet	ER11-3、4、6	/	3	\$36
	End Mill	3、4、6mm	/	3	\$24

## 5. Show



# 6. Warranty

1.1 The warranty period is one year, and replacement parts are available at cost after the warranty expires.

**1.2** If natural damage occurs during the warranty period, we will provide parts and remote guidance free of charge.

**1.3** Warranty does not cover incorrect operation, unauthorized product disassembly, or deliberate human damage.

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# 7. Q&A

	7.1.	What mate	rials does	the	machine	work	with?
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Tool	Fixture	implement	Blank	Measuring tool	Other
End Mill& Collet	Quick-Action Pliers	Spindle key	Die wood	Vernier calipers	Coolant: alcohol
V-Shape Mill	Toad Pliers	Hex key	Aluminium alloy	Percentage Gauge	Glue
Ball End	Press bar		Copper Alloy	Magnetic Holder	Air compressor
			Non-metal		

#### 7.2. Equipment operation process?

- a. Turning on the control panel
- b. Reset the position of the axes, send them to the home position
- c. Clamp the tool
- d. Clamp the workpiece
- e. Set the workpiece coordinate system
- f. Calibrate the tool in the Z axis
- g. Download and run the processing program

7.3. Difficulties in learning to operate the equipment?

When using the machine for the first time, it can be difficult to use the CAM software, use the offline control controller, and select the right cutters for the material. Always follow safety precautions. Remember, experience comes with time.

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