

Multi-angle curved surface process machine

A whole new concept of universal device for curved surfaces marking

A. Capable of controlling 5-axis and 3D laser laser scanner.

B. Support teaching operation, non-professionals can also use it easily

C. MM3D control system for effortless processing of curved surfaces.

D. Combined with the marking system and axes control, it can be moved to any angle for marking

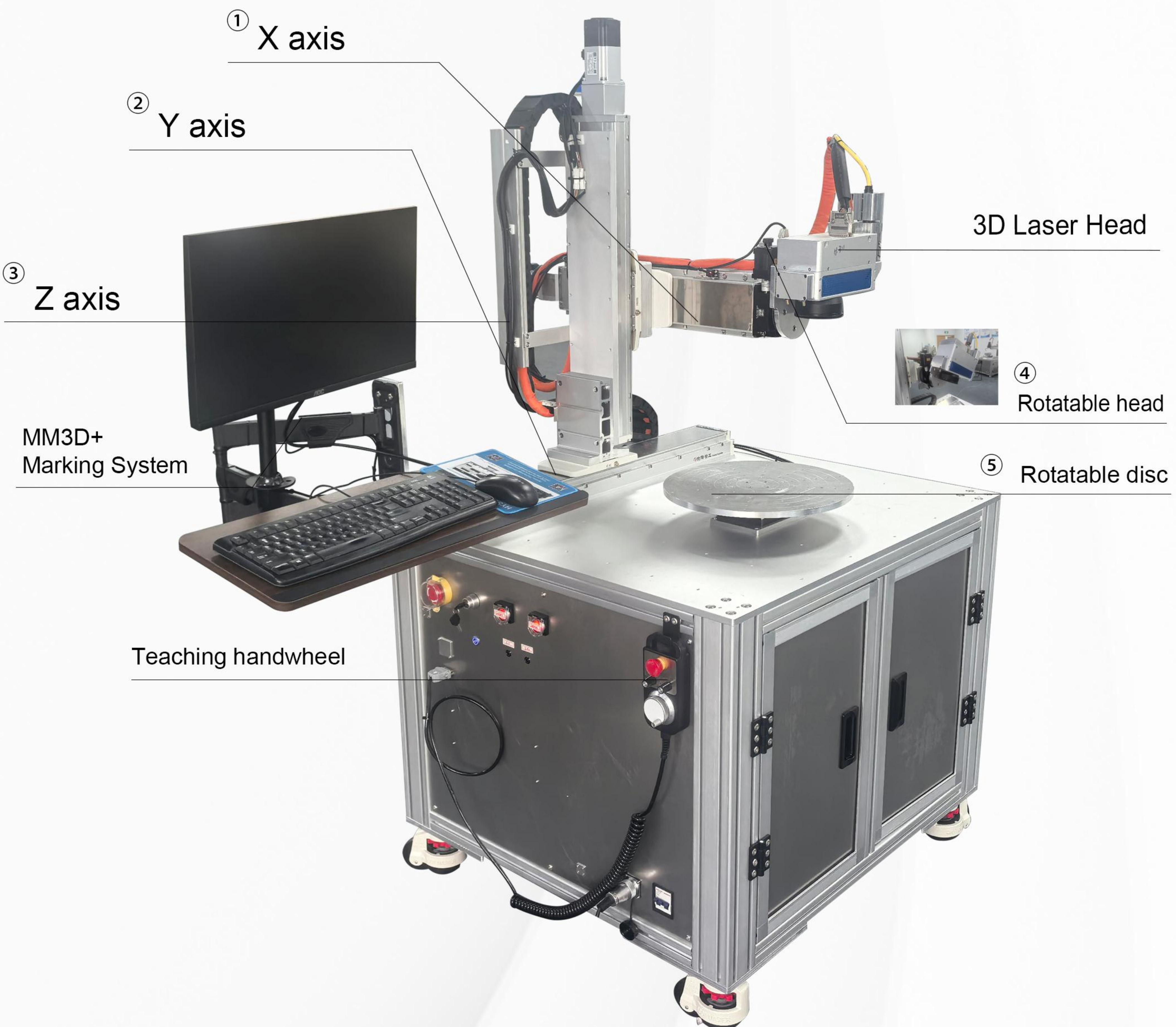
E. Ability to segment the processing content and go to splice and mark the content.



Easily solve the processing of curved workpieces at any angle

Multi-angle curved surface laser process machine

Multi-angle processing of curve surface models and textures



Suitable for molds and small workpieces

Work area: 520*630*330mm

The laser can mark to any position of the curved surface by 3D head and 5 motion axes

Laser Cleaning

Large angle and curved surface marking

By using 3D segment and splice technology with 3D head + multi-axis control can complete a multi-angle curved surface process at one time

Large-scale curved surface marking

Fulfill large-scale curved surface process at one time by using 3D segments and splice technology with 3D head + multi-axis control

Flat and curved surface texture processing

Fulfill process customized texture to imported model and splice at any position

Multi-angle model deep carving

Simultaneous X,Y,Z motion 3D head and multi-axis to ensure a precise deep carving at any angle. No need to move laser head during deep carving.

Automation marking

- Process paths can be set by teaching operation to fulfill automation marking
- Through automation marking to fulfill same process effect for batch production

Operational advantage

Multi-angle curved surface processing

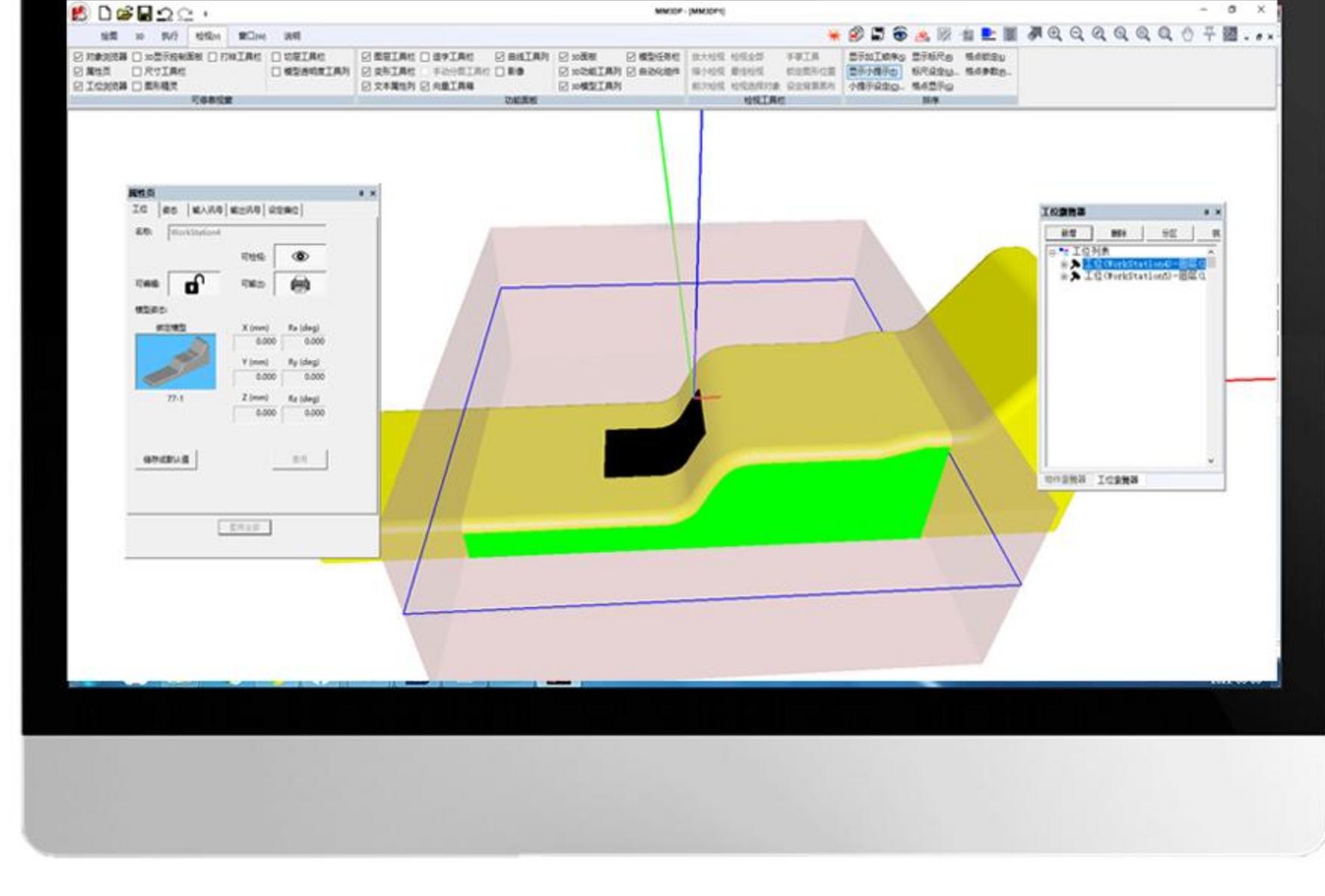
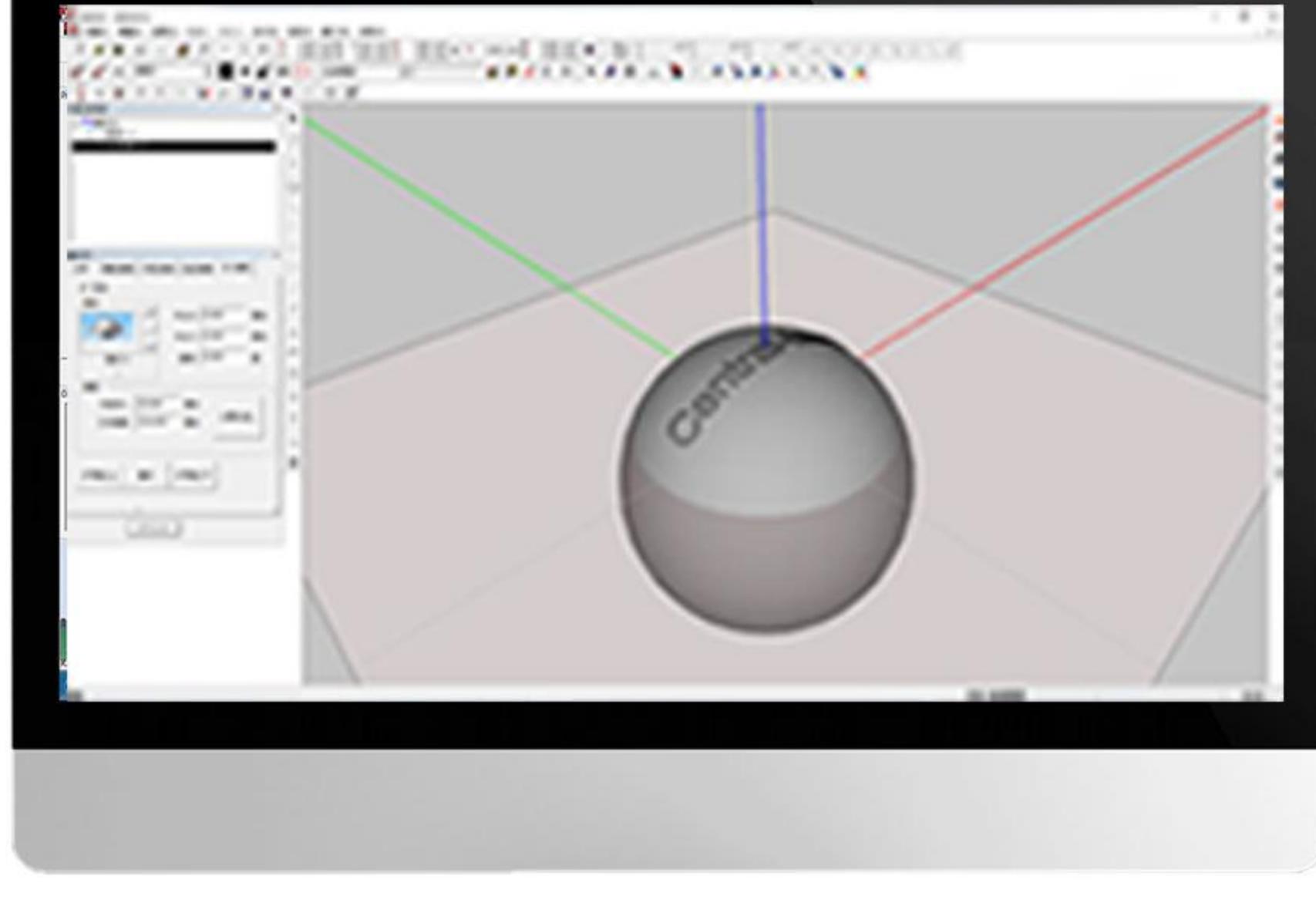
Integrated 3D head and multi-axis control with 3D segment and splice technology to fulfill large angle and large scale curved surface process

MM3D+ Marking control

MM3D+ Marking system

3D marking control system, can easily mark models, curved surfaces, etc.

Equipped with 3D segment technology to divided model to multiple process areas for splicing and marking



Teaching operation

By using teaching hand wheel and red guide light to set the process paths for automation marking.

LSB Control system

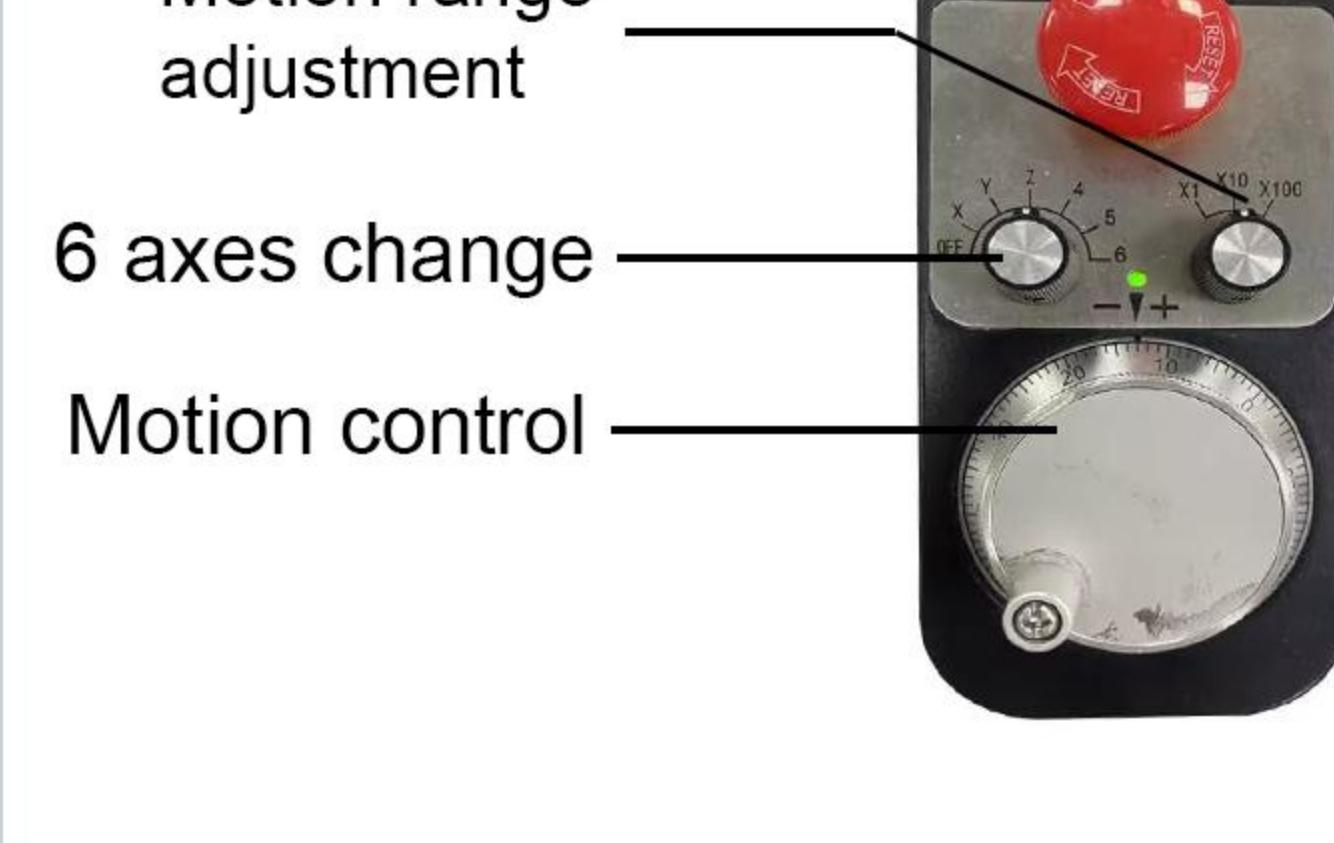
Touch Screen

Can edit the machining path and parameter



Teaching pendant

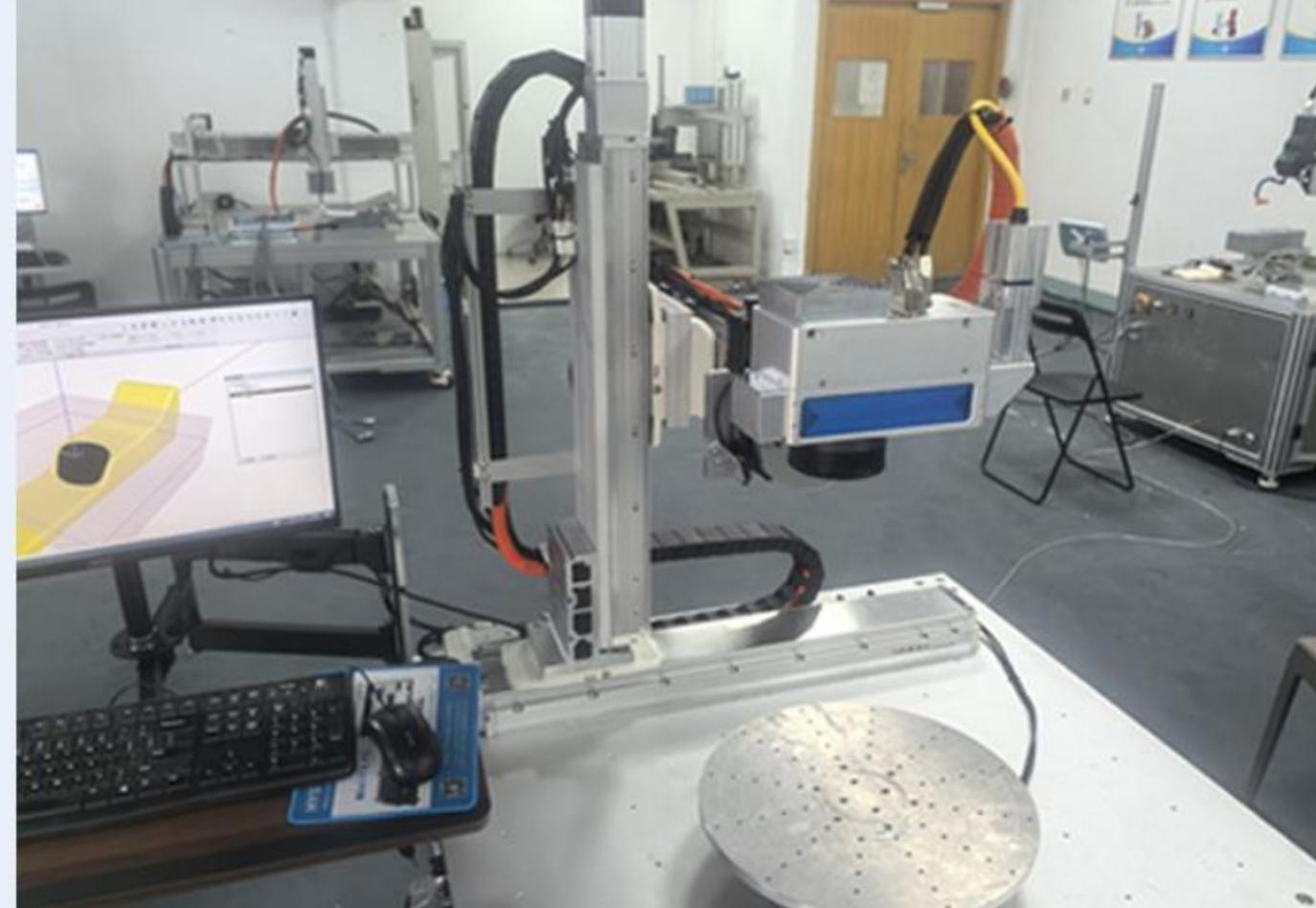
Control 5 axes through teach pendant to set processing path. It can adjust motion range for high accuracy process



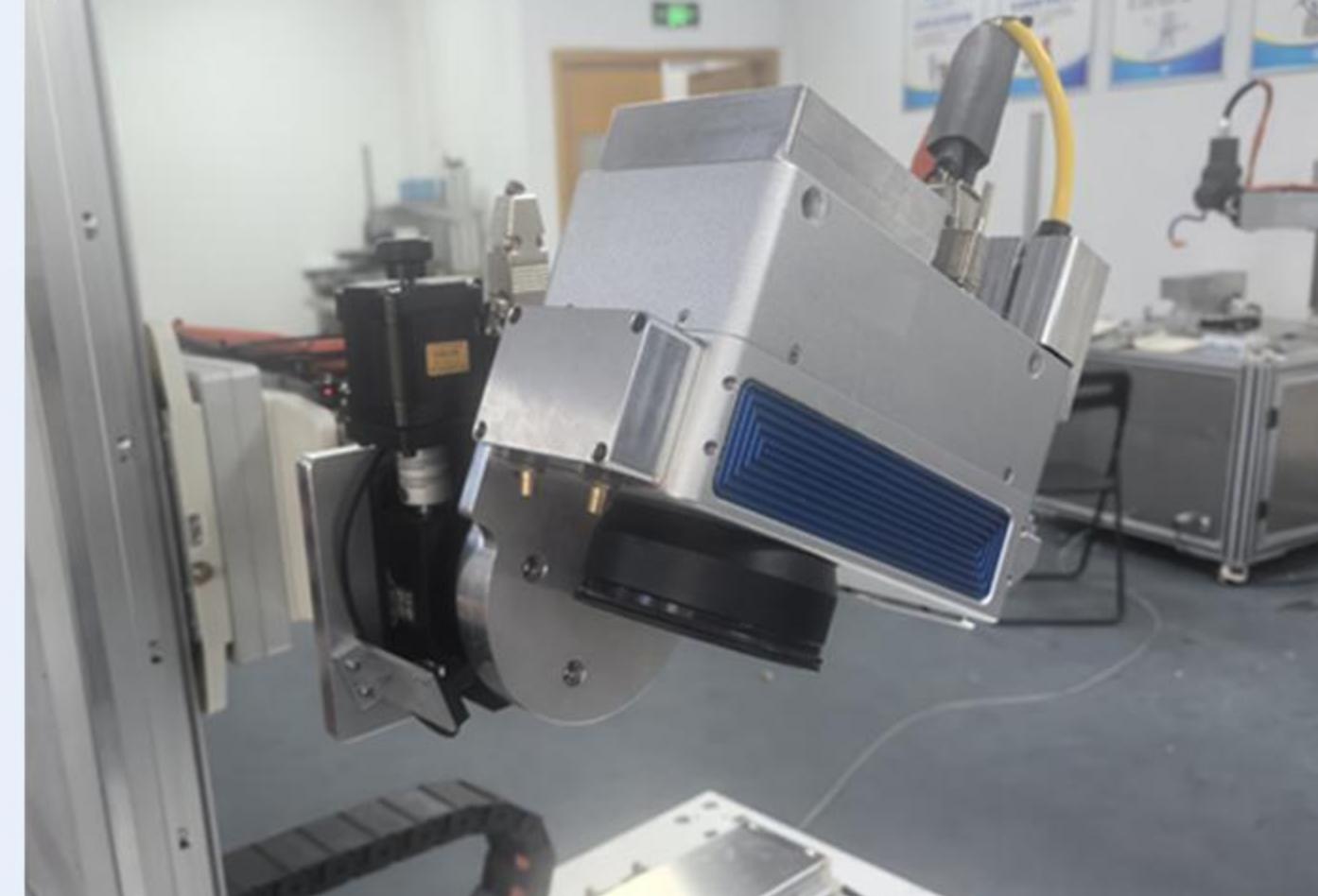
5-Axis Control

Moving laser head to any position and angle of 3D workpiece for process

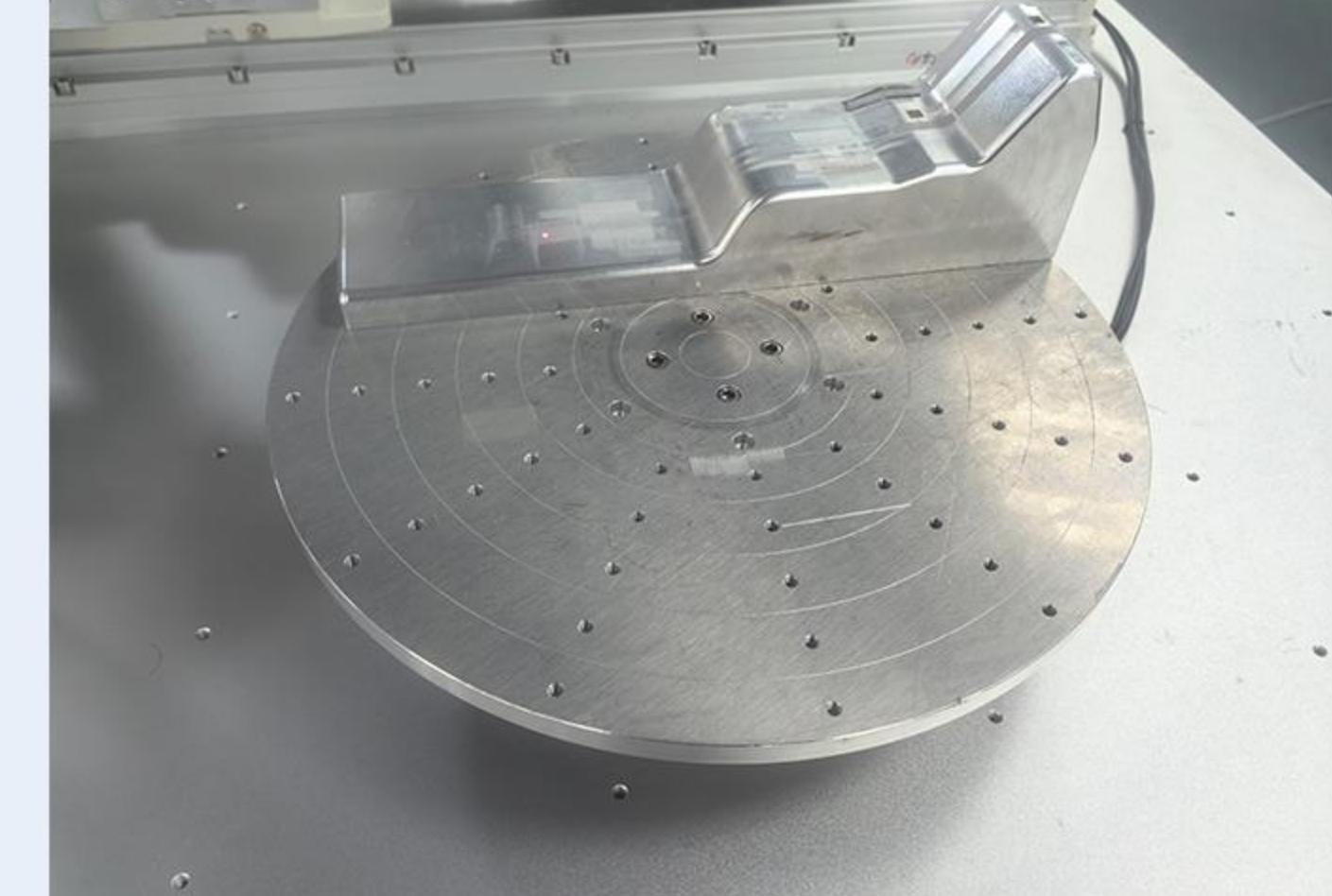
Teaching hand wheel can move or rotate X,Y,Z axis, laser head and work disc to any position of workpiece performing no dead zone process



XYZ axes motion



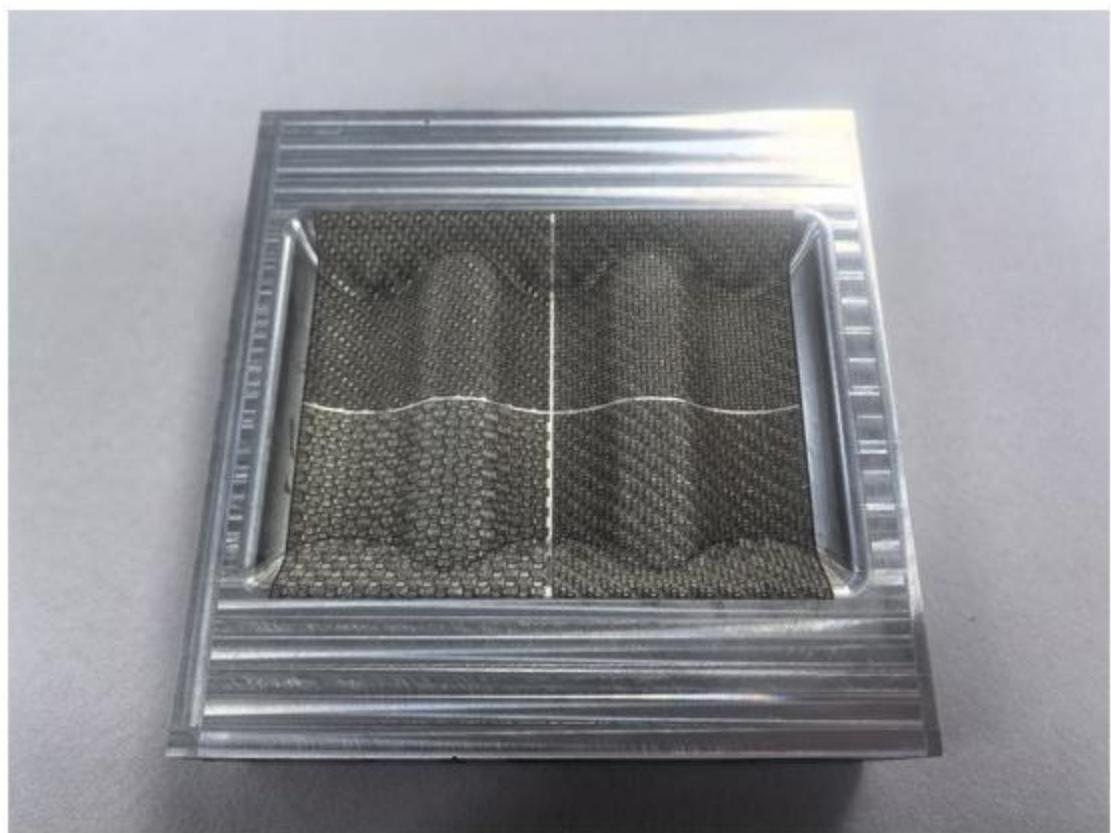
Rotatable laser head



Rotatable disc

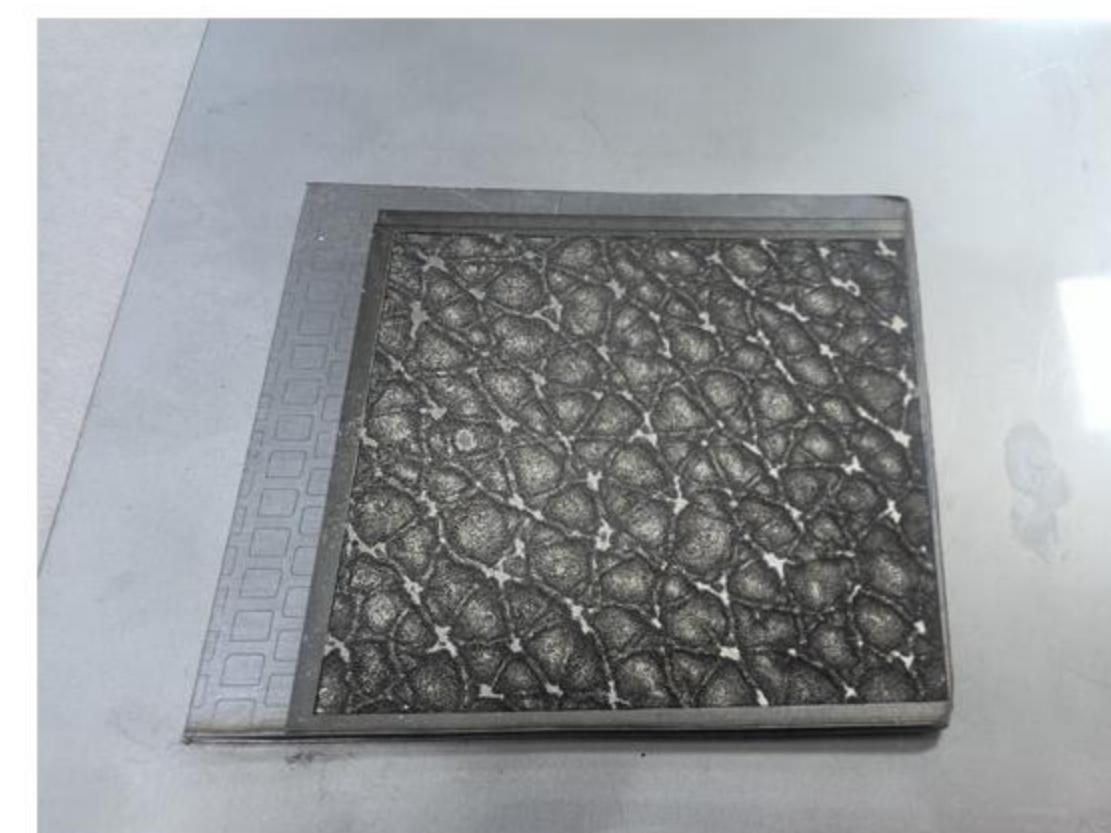
Application

Mold Texture



Play Video

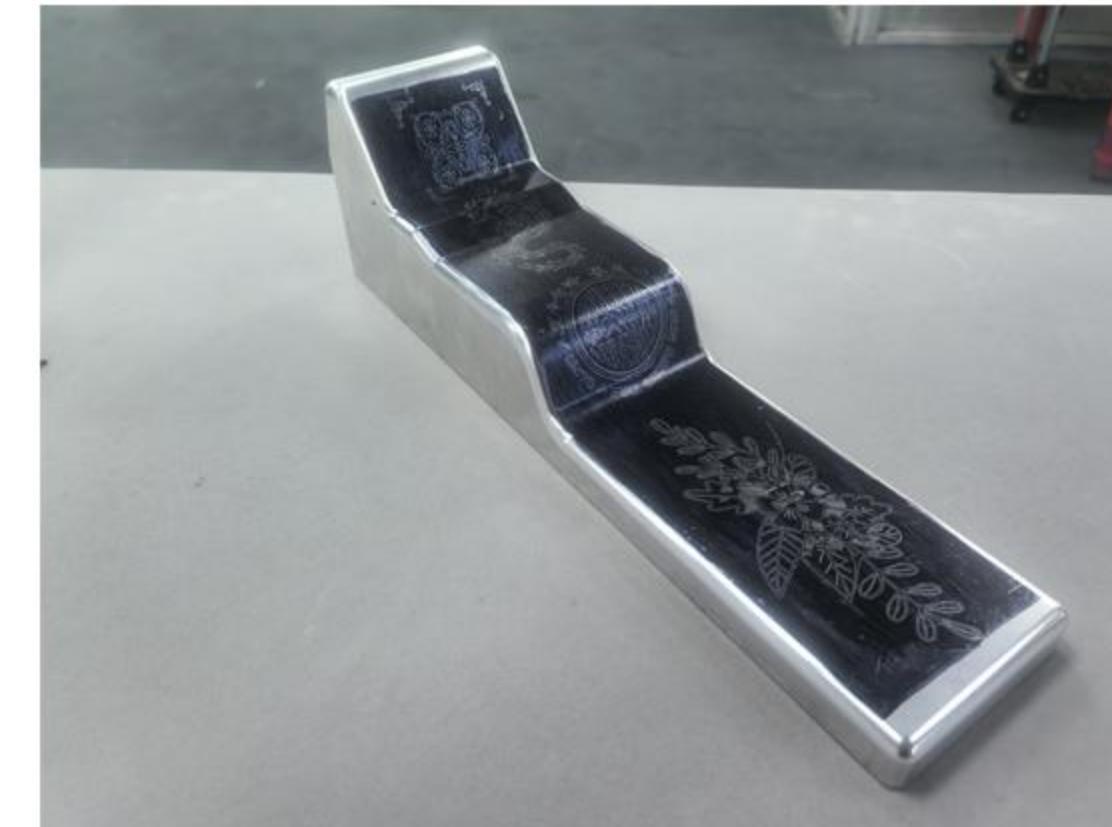
Image Deep Carving



DXF Deep Carving

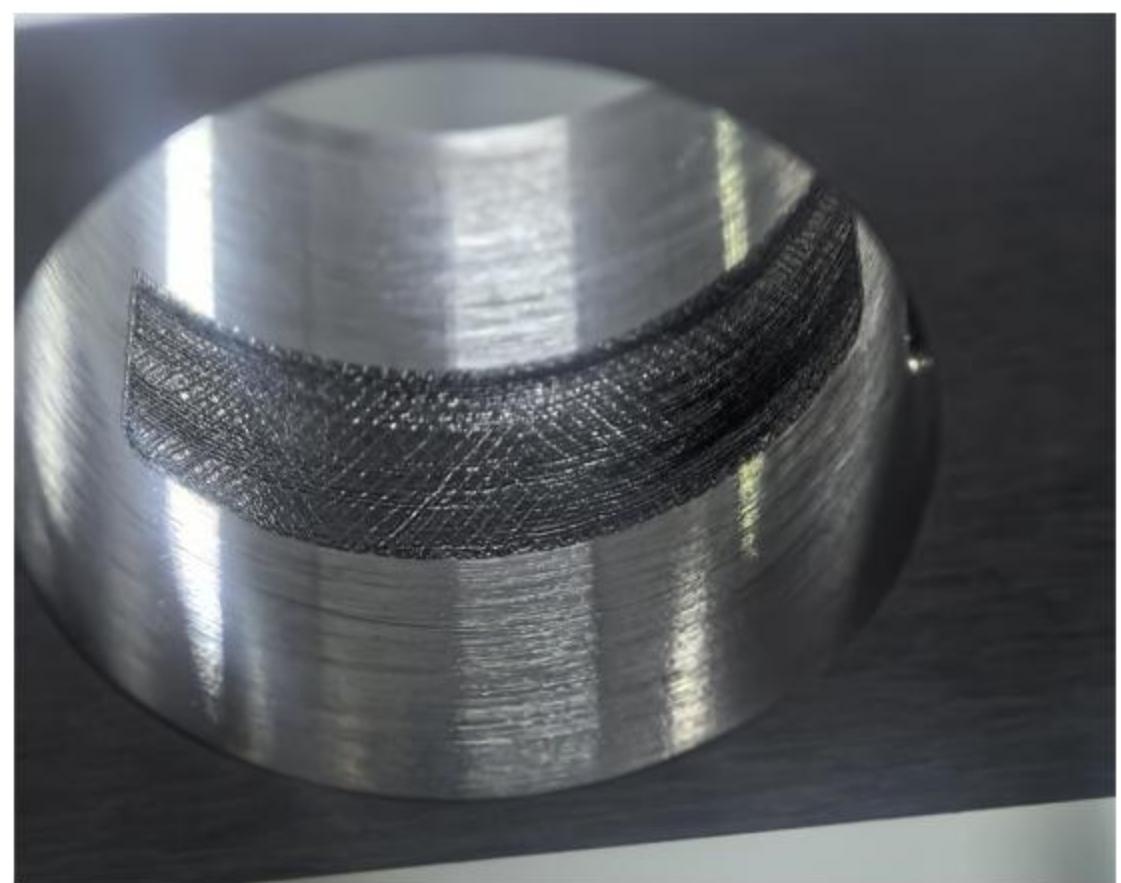


Large-scale Pattern Splice



Play Video

Specific position roughening in blind holes



Play Video

Cutting



Parameter

Multi-angle curved surface laser process machine

LSB-AN3D-200-40-55-40-RO-140D

Laser	Laser Power	200W mopa		
	Pulse energy	Single Mode 2mj		
	Wavelength	1064nm		
	Freq./Pulse Width	1-3000KHz / 13-500ns		
3D scanner	Scan speed	$\leq 14000\text{mm/s}$		
	Scan range	200*200mm		
	Max. Min. Focal length	Min: 266mm, Max: 344mm		
	Virable focal length	78mm		
	Positioning accuracy	$\leq 0.0176\text{mm}$		
User Operation	Operation System	Windows PC		
	Software	MM3D Software		
	Hand wheel	Hand wheel pulse generator (5 axes)		
Axes Table (Customizable)	Size(L,W,H)	850*900*1706mm		
	Load bearing	200kg		
	Axis travels	X axis: 1-293mm	Y axis: 1-485mm	Z axis: 1-386mm
	Max. Process area	393mm*585mm		
	Max. process height	464mm		
	Head rotatable angle	$-107.56^\circ \sim +58.27^\circ$		
Rotating disc (optional)	Disc diameter	360mm		
	Height	73mm		
	Load bearing	50kg		
	Rotation angle	360°		
Work Demand	Cooling way	Air cooling	Structure	
	Working Temp.	0~40°C		
	Power Supply	110~220V, 50/60HZ		
	Power Consumption	3000W		