

xTool P2 Class 1 & Class 4 Differences

1. Regulatory different

Class I devices: Applicable for EN80625-1:2014 Class I or FDA Laser classes I.

Class IV devices: Applicable for EN80625-1:2014 Class IV or FDA Laser classes IV

2. Function different

Class 1 laser machines can't work without the baseplate in place, and therefore the working area is above the baseplate.

No processing can be performed without the baseplate in place.

	Processing type	Baseplate detection
Class 1	<ul style="list-style-type: none">• Laser flat (with baseplate installed)• Roller mode of Laser cylindrical	<p>No processing can be performed without the baseplate in place.</p> <p>Processing will be canceled if the baseplate is removed during the processing</p>
Class 4	<ul style="list-style-type: none">• Laser flat (with and without baseplate installed)• Laser cylindrical (Roller and chunk mode)• Open plane• Curve process• Conveyor feeder	<p>Baseplate detection is performed for some processing types.</p>

Functions supported by Class 1 and Class 4 laser machines

Function	Subfunction	Class 4	Class 1	Remarks
Device connection	USB, Wi-Fi, IP, Ethernet	✓	✓	
Device panel	Distant shot	✓	✓	
	Close shot	✓	✓	
Measurement	Aimed measure	✓	✓	
	Quick measure	✓	✓	
Processing type	Laser flat	✓	✓	
	Laser cylindrical	✓	✓	With the baseplate in place, Class 1 laser machines support only the rollers of a rotary attachment, and do not support the chuck.
	Open plane	✓	✗	
	Passthrough	✓	✗	
	Laser curve	✓	✗	
	Conveyor feeder	✓	✗	

Tech Parameters

Product Information	Class I	Class IV
Rated Power	55W(CO ₂ Glass Laser Tube)	55W(CO ₂ Glass Laser Tube)
Package Size	44.4"×28.6"×13.6"(1122×727×346mm)	44.4"×28.6"×13.6"(1122×727×346mm)
Product Size	39.4"×25.1"×10.6" (1000×639×268mm)	39.4"×25.1"×10.6" (1000×639×268mm)
Product Weight	45KG	45KG
Max. Engraving Speed	600mm/s	600mm/s
Processing Precision	0.01mm	0.01mm
Z-axis Movement	2.7"(68mm)	3"(75mm)
Lifespan	6000~8000h	6000~8000h
Safety Guard	Class I (FDA Certified)	Class IV (FDA Certified)
Laser Spot	0.15×0.2mm	0.15×0.2mm
Work Area		
Bed Size	26.7"×14.1"(680×360mm)	26.7"×14.1"(680×360mm)
Processing Area	23.6"×12.1"(600×308mm)	23.6"×12.1"(600×308mm)
Max. Workpiece Height	2.5"(64mm)	With tray 2.5"(64mm) Without tray 2.7"(71mm) With riser base 8.5"(215mm)
Max. Passthrough Width		Without riser base 27.6"(700mm)

		With riser base 25.2"(640mm)
Max. Passthrough Height		width 0-599mm: 30mm width 600-700mm: 18mm With riser base 112mm
Rotary engraving diameter with tray	Roller:3-42mm Chuck:X	Roller:3-42mm Chuck: x
Rotary engraving diameter without tray		Roller:3-50mm Chuck:x
Rotary engraving diameter with riser base		Roller:3-180mm Chuck:0-100mm
AI Camera Information		
Camera	Long-range camera + close-range camera	Long-range camera + close-range camera
Number of Pixels (Effective)	16MP×2	16MP×2
Vision Precision	0.3mm	0.3mm
Image Resolution	1000DPI	1000DPI
Focus Mode	Autofocus	Autofocus
Positioning	AI Visual Positioning	AI Visual Positioning
Build-in Accessories		
Cooling System	Closed-loop self-contained internal liquid cooling system	Closed-loop self-contained internal liquid cooling system
Water-cooling System Capacity	1.4L(0.37gal)	1.4L(0.37gal)

Air Assist (adjustable)	15-150Kpa	15-150Kpa
Exhaust Fan	145CFM	145CFM
Software and Connection		
Operating Systems	Windows / macOS / iPadOS	Windows / macOS / iPadOS
Control Software	xTool Creative Space / LightBurn	xTool Creative Space / LightBurn
Supported File Type	SVG, DXF, JPG, JPEG, PNG, BMP	SVG, DXF, JPG, JPEG, PNG, BMP
Connection / Transmission	Wi-Fi, USB, Ethernet	Wi-Fi, USB, Ethernet