

## Xtool P2, F1, S1 and M1 comparison

**P2**



Flagship 55W CO2 laser  
for pros and business

SHOP NOW

**F1**



Dual laser engraver for fast,  
on-the-go personalization

SHOP NOW

**S1**



Flagship diode laser for  
DIY and side hustle

SHOP NOW

**M1**



The perfect home crafting  
machine with laser & vinyl  
cutting

SHOP NOW

## Key Features

	P2	F1	S1	M1
	<ul style="list-style-type: none"> <li>• 55W Powerful CO2 laser</li> <li>• Automatic passthrough</li> <li>• Dual 16MP cameras</li> <li>• Curved surface engraving</li> <li>• 26 x 14 inch bed size</li> </ul>	<ul style="list-style-type: none"> <li>• 2 in 1: 10W blue laser + 2W 1064nm infrared laser</li> <li>• Upto 4000mm/s engraving speed</li> <li>• HD Photo Resolution with 0.0019mm Movement Accuracy</li> <li>• Handheld &amp; Portable</li> <li>• Pre-assembled and auto-</li> </ul>	<ul style="list-style-type: none"> <li>• Class 1 laser safety</li> <li>• Multiple laser modules</li> <li>• Larger working area and expandable</li> <li>• Dynamic-focus engraving</li> <li>• Autofocus</li> </ul>	<ul style="list-style-type: none"> <li>• 3 in 1: laser cutting and engraving; blade cutting</li> <li>• Pre-assembled with enclosed design</li> <li>• Auto-focus</li> <li>• Smart camera with live preview</li> </ul>

## Detail

	P2	F1	S1	M1
<b>Laser type</b>	<ul style="list-style-type: none"> <li>• CO2 laser</li> </ul>	<ul style="list-style-type: none"> <li>• Diode laser + 1064nm Infrared laser</li> </ul>	<ul style="list-style-type: none"> <li>• Diode laser</li> </ul>	<ul style="list-style-type: none"> <li>• Diode laser &amp; blade cutting</li> </ul>
<b>Laser output power</b>	<ul style="list-style-type: none"> <li>• 55W CO2 laser</li> </ul>	<ul style="list-style-type: none"> <li>• 10W: Diode laser</li> <li>• 2W: 1064nm Infrared laser</li> </ul>	<ul style="list-style-type: none"> <li>• 40W Diode laser</li> </ul>	<ul style="list-style-type: none"> <li>• 10W Diode laser</li> </ul>
<b>Max cutting thickness in 1 pass (Basswood)</b>	<ul style="list-style-type: none"> <li>• 18mm</li> </ul>	<ul style="list-style-type: none"> <li>• 6mm (10W Diode laser)</li> </ul>	<ul style="list-style-type: none"> <li>• 15mm</li> </ul>	<ul style="list-style-type: none"> <li>• 8mm</li> </ul>

	P2	F1	S1	M1
<b>Max cutting thickness in 1 pass (Transparent Acrylic)</b>	<ul style="list-style-type: none"> <li>• 20mm</li> </ul>	-	-	-
<b>Upto working speed</b>	<ul style="list-style-type: none"> <li>• 600mm/s</li> </ul>	<ul style="list-style-type: none"> <li>• 4000mm/s</li> </ul>	<ul style="list-style-type: none"> <li>• 600mm/s</li> </ul>	<ul style="list-style-type: none"> <li>• 250mm/s</li> </ul>
<b>Working area</b>	<ul style="list-style-type: none"> <li>• 600 x 305mm 23.6" x 12" Bed Size 680 x 360mm 26.7" x 14.1"</li> </ul>	<ul style="list-style-type: none"> <li>• 115 x 115mm rounded rectangle 4.53" x 4.53" Expandable to 400 x 115mm 15.75" x 4.53"</li> </ul>	<ul style="list-style-type: none"> <li>• 498 x 319mm 19.61" x 12.56" Expandable to 470 x 3000mm 18.5" x 118.11" with automatic conveyor feeder</li> </ul>	<ul style="list-style-type: none"> <li>• 385 x 300mm 15" x 11.8"</li> </ul>
<b>Laser spot size (engraving fineness)</b>	<ul style="list-style-type: none"> <li>• 0.15 x 0.2mm</li> </ul>	<ul style="list-style-type: none"> <li>• 0.08 x 0.06mm (10W Diode laser) 0.03 x 0.03mm 1064nm Infrared laser</li> </ul>	<ul style="list-style-type: none"> <li>• 0.08 x 0.10mm</li> </ul>	<ul style="list-style-type: none"> <li>• 0.08 x 0.08mm</li> </ul>
<b>Focus Mode</b>	<ul style="list-style-type: none"> <li>• Auto</li> </ul>	<ul style="list-style-type: none"> <li>• Manual/Auto</li> </ul>	<ul style="list-style-type: none"> <li>• Auto</li> </ul>	<ul style="list-style-type: none"> <li>• Auto</li> </ul>

	P2	F1	S1	M1
<b>AI Camera</b>	✓	-	-	✓
<b>Pre-assembled</b>	✓	✓	✓	✓
<b>Enclosed</b>	✓	✓	✓	✓
<b>Portable</b>	★ ★ ★	★ ★ ★	★ ★ ★	★ ★ ★
<b>Product Weight</b>	45KG	4.6KG	20KG	9.8KG
<b>Dimensions</b>	1000 x 639 x 268mm	179 x 235 x 334mm	765 x 561 x 183mm	557 x 453 x 230mm
<b>Software</b>				
<b>Applications</b>	XCS Lightburn	XCS Lightburn	XCS Lightburn	XCS
<b>Connection</b>	USB/Wi-Fi/Ethernet	USB/Wi-Fi	USB/Wi-Fi/TF Card	USB/Wi-Fi

## Support Materials

# Support Materials

	P2	F1	S1	M1
<b>Cuttable</b>	CO2 Laser: Paper, wood, acrylic, leather, cardboard, MDF, felt, rubber	Diode Laser: Paper, wood, leather, MDF, felt, Some dark opaque acrylic	Diode Laser: Paper, wood, leather, MDF, Felt, Some dark opaque acrylic	Diode Laser: Paper, wood, leather, MDF, Felt, Some dark opaque acrylic Blade: paper, fabric, vinyl and leather
<b>Engravable</b>	CO2 Laser: Paper, wood, acrylic, leather, cardboard, MDF, felt, rubber, bamboo, fabric, glass, ceramic, jade, marble, shale, cement, brick, plated metal, painted metal	Diode Laser: Paper, wood, leather, MDF, felt, Some dark opaque acrylic, bamboo, fabric, glass, ceramic, jade, marble, shale, cement, brick, plated metal, painted metal 1064nm Infrared laser: Metal, plastic, black acrylic	Diode Laser: Paper, wood, leather, MDF, felt, Some dark opaque acrylic, bamboo, fabric, glass, ceramic, jade, marble, shale, cement, brick, plated metal, painted metal	Diode Laser: Paper, wood, leather, MDF, felt, Some dark opaque acrylic, bamboo, fabric, glass, ceramic, jade, marble, shale, cement, brick, plated metal, painted metal

P2

F1

S1

M1

## Accessories

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### Laser Type

#### **Automatic Conveyor Feeder:**

Automatically engrave and cut materials upto 96" long

#### **Xtool RA2 Pro:**

4-in-1 rotary for laser engraver

#### **Xtool P2 Riser Base:**

Raises the machine to work on thicker and larger objects

#### **xTool RA2 Pro for F1:**

Supports 90% cylinder engraving

#### **Desktop Smoke Purifier:**

99.97% Air purifier

#### **xTool RA2 Pro:**

4-in-1 rotary for laser engraving

#### **xTool S1 Automatic Conveyor Feeder:**

Automatically engrave and cut materials upto 118" long.

#### **xTool S1 Riser Base:**

Raises the machine to work on thicker and larger objects.

#### **xTool Smart Air Assist:**

Automatically adjusts airflow to boost cutting capabilities and achieve cleaner edges

#### **xTool RA2 Pro for M1:**

Supports 90% cylinder engraving

#### **xTool M1 Air Assist Set:**

For a cleaner, smoother cutting finish

#### **xTool M1 Riser Base with Honeycomb Panel:**

Raised and enclosed, versatile in use.

#### **M1 Smoke Purifier:**

99.97% Air purifier

## Accessories

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**xTool S1 1064nm IR  
laser module:**

All-metal, plastic and  
acrylic engraving

**xTool S1 Honeycomb  
Panel:**

Neater & cleaner  
cutting results

**xTool S1 Fire Safety  
Set:**

Worlds first  
automatic fire safety  
set for fire detection  
and fire extinguishing

**xTool Desktop Smoke  
Purifier:**

99.97% Air purifier