

8101 Speedy 480 Black Line

Laser engraving system

Technical Specification

Model name	Speedy 480 Black Line
Machine generation	8100
Laser system	Sealed-off RF CO ₂ laser, maintenance free, wavelength 10.6 µm
Laser power	80 W or 120 W
Working area	1248 x 624 mm (49 x 24.5 in)
Loading area	1350 x 680 mm (53.1 x 26.8 in)
Max. height of workpiece (standard lens 2")	With table: 195 mm (7.7 in) Without table: 300 mm (11.8 in)
Max. material load	Static: up to 100 kg (220.5 lbs) / dynamic: up to 30 kg (66.1 lbs), load over the whole working area
Max. processing speed (x-axis)	4.32 m/s (170.08 ips)
Max. acceleration (x-axis)	50 m/s ² (1968.5 ips ²)
Accuracy	+/- 0.015 mm (0.0006 in), over the whole working area
Motors	Brushless DC servo motors with incremental measuring system
Voltage / Power consumption AC	80 W: 115 V/230 V /1600 W 120 W: 230 V / 2200 W
Dimensions (W x D x H)	1885 x 1140 x 1040 mm (74.2 x 44.9 x 41 in)
Weight	Approx. 375 kg (826.7 lbs)
Exhaust working point	Min. 400 m ³ /h at 4200 Pa (min. 235.4 cfm at 16.86 inH ₂ O)
Interfaces	USB, Ethernet
Software	Ruby®
Operating system	Linux

Standard features

Lens	2.0" lens
Working table	Aluminum grid table, ferromagnetic vacuum table or waveline table incl. rulers (mm/in)
Cooling laser source	Air cooling with fan
Camera system Vision Design & Position (VDP)	1 lid camera (20 MP) for positioning, NO measuring unit
Autofocus	Ultrasonic sensor/SonarTechnology™
Exhaust system	Flow-optimized surface and table extraction
Control panel	10.1" Touchpanel, Keypad, emergency stop button, key switch, USB hub
Air Assist	Via laser head

Accessories Air Assist	Nozzles Ø 3 mm and Ø 7 mm
InPack Technology™	Extended protection of system components
Laser positioning system	Laser pointer, 655 nm, <0.99 mWcw
Work area light	LED bar

Accessories

Lenses	1.5 in, 2.5 in, 4 in
Aluminum grid table	Universal table, specially coated for use in the laser plotter
Ferromagnetic vacuum table	Combines vacuum hold-down for thin materials with the option of using magnets for additional positioning.
Waveline table	Table designed specifically for cutting acrylic with reduced reflections.
Vision Print & Cut camera	System for precise and accurate cutting of printed applications (Print & Cut), ready for 12.5 MP
Exhaust system	Atmos Pure 600
TroCare	Comprehensive package of technical services

Safety & Certifications

Laser class	CDRH laser class 2
Certificates	CE compliant, FDA listed
Safety devices	Interlock safety system (Pilz)
Ambient conditions	Mandatory ambient temperature +15 °C to +25 °C or 59 °F to 77 °F Humidity 40 % to max. 70 %, not condensing. Dust free environment (degree of contamination 2 in accordance with IEC60947-1)

Subject to change without notice.

Errors and omissions excepted.

Model identification: 8101 Speedy 480 Black Line

Serial number starting with: S480-0000020

Version: v1.0, 2026-08