

SP1500 - Technical Specifications

Mechanics

Working area	1500 x 1250 mm (59 x 49 in)
Loading area	1700 x 1600 mm (66 x 62 in)
Max. height of work piece	40 / 53 / 75 mm (1.57 / 2.08 / 2.95 in) (3 work table levels) 185 mm (7.28 in) with table removed (flatness with removed work table cannot be guaranteed)
Work piece table	Cutting table with removable slats
Max. processing speed	1,65 m/s (65 in/sec)
Acceleration	9,55 m/s ² (375 in/sec ²)
Motors	Brushless DC servo motors
Position sensor	Incremental encoder
Optical elements	Lens and all mirrors air-flushed
Lens	2.0" and 5.0" (standard)
Repeatability	<± 30 µm (0.0012 in) across the entire working area
Addressable accuracy	3 µm (0.0001 in)
Accuracy of part size	Results depend on material and process, exact figures for specific applications can be determined during sampling
Maximum material load	25 kg (55 lbs), even load distribution across the entire working area
Exhaust	Travelling and table exhaust
Software	JobControl® Expert + TroCAM Basic
Interface	USB for connection with Control PC
Operating elements	Keypad, system turnkey, safety switch

Laser

Laser system	Sealed-off CO ₂ laser
Laser power	100, 200, or 400 watts
Cooling	Water cooled
Wavelength	10,6 µm

Options

JobControl® Vision	Camera compensation system for print & cut applications
Gas-Kit	Control of compressed air and process gas with max. 6 bar (87 psi) supply pressure
Vacuum table	For reliable cutting of thin or corrugated materials
TroCAM Advanced	CAD / CAM software for perfect cutting results; nesting-function, lead-in/lead-out, kerf correction
Table tops	Aluminum cutting grid tabletop or acrylic cutting grid tabletop
Standard Chiller	Complementary cooling unit for all power levels
Advanced Chiller	Available for 200 W and 400 W laser power, with tempering function, reduced noise and reduced energy consumption
Workflow integration	UniDrive software package for automatic job generation via hot folder and job ticket interface, remote interface for execution control
After Sales Service	Customized service packages available

Dimensions (W x D x H) & Weight

Machine	2829 x 2197 x 1293 mm (112 x 87 x 51 in)
Weight	1200 - 1300 kgs / 2646 – 2867 lbs (depending on laser power)
Chiller	720 x 835 x 930 mm (117 x 33 x 37 in) (400 watts standard chiller) 130 kg (287 lbs) (400 watts standard chiller)

Safety & Environment

Laser class	CDRH laser safety; CE tested Laser class 2 (Laser class 4 with pass-through)
Loading lid	Front and back side loading lid
Interlock	Two-channel interlock safety system
Ambient conditions	Temperature +15° to +25° C or 59° to 77° F Humidity 40% to max.. 70%, not condensing Dust free environment (2nd degree according to IEC 60947-1)

Electrical & Exhaust

Exhaust Operating Point	See SP1500 Pre-Installation Guide
Voltage and Power Requirements (Machine without chiller)	1 x 230V (L+N+PE) 50/60Hz (100W) 3 x 400V (3xL+N+PE) 50/60Hz (200W / 400W) Max. 9.5 kW