

SP500 - Technical Specifications

Mechanics

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|---------------------------|---|
| Working area | 1245 x 710 mm (49 x 28 in) |
| Loading area | 1420 x 820 mm (56 x 32 in) |
| Max. height of work piece | 112 mm (4.4 in) slat cutting table 95 mm (3.7 in) aluminum cutting grid table and acrylic cutting grid table 98 mm (3.7 in) vacuum table 300 mm (11.8 in) with table removed on an area of 1245 x 610mm (49 x 24 in) - flatness with removed tables cannot be guaranteed |
| Work piece table | Slat, vacuum, aluminum cutting grid or acrylic cutting grid table – one table included as standard; electronic, programmable z-axis with servo motor |
| Max. processing speed | 2;54 m/s (100 in/sec) |
| Acceleration | 19 m/s ² (748 in/sec ²) |
| Motors | Brushless DC servo motors |
| Position sensor | Incremental encoder |
| Optical elements | lens and all mirrors air-flushed |
| Lens | 2.0" (standard); 2.5", 5.0" (optional) 2.5" clearance lense (optional) – gives 12,5 mm (0,5 in) more clearance than standard lenses 3.75" rotary lens –additional clearance especially for rotary jobs |
| Repeatability | <± 30 µm (0.0012 in) across the entire working area |
| Addressable accuracy | 4.6 µm (0.0002 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 exhaust; table exhaust (with cutting- and vacuum table) |
| Software | JobControl® Expert |
| Interface | USB for connection with Control PC |
| Operating elements | Keypad, system turnkey, safety switch |

Laser

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|--------------|--|
| Laser system | Sealed-off CO ₂ laser |
| Laser power | 60, 80, 100, 120, or 200 watts |
| Cooling | Air or water cooled (depending on model) |
| Wavelength | 10,6 µm |

Options

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|---------------------------|---|
| Rotary attachment | Cones and roller version; max length of work piece: 104 cm (41 in) (roller) / 84 cm (33 in) (cones); diameter: 15 cm (0,59 in) (roller) / 25 cm (10 in) (cones) |
| JobControl® Vision | Camera compensation system for print & cut applications, available across the entire working area |
| Gas-Kit | Control of compressed air and process gas with max. 6 bar (87 psi) supply pressure |
| TroCAM Basic/Advanced | CAD / CAM software for perfect cutting results; nesting-function, lead-in/lead-out, kerf correction |
| Pass Through Retrofit Kit | Working area 1245 mm (40 in) x ∞ Loading area 1420 mm (56 in) x ∞ |
| Table tops | Honeycomb cutting tabletop, aluminum cutting grid tabletop or acrylic cutting grid tabletop |
| Chiller | Complementary cooling unit for all power levels Advanced cooler for 200 W, with tempering function, reduced noise level, 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

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|---------|--|
| Machine | 1920 x 1240 x 1140 (780 without base frame) mm or 75.5 x 48.8 x 45.0 (30.7 without base frame) in |
| Weight | 520 - 580 kg / 1100 - 1300 lbs (depending on laser power) |

Safety & Environment

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|--------------------|--|
| Laser class | CDRH laser safety; CE tested Laser class 2 |
| Loading lid | Front 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

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| Exhaust Operating Point | Min. 640 m³/h at 8500 Pa |
| Voltage and Power | 1 x 208/230V (L+N+PE) 50/60Hz (up to 120 W) |
| Requirements (Machine without chiller) | 3 x 208/230V or 3 x 400V (3xL+N+PE) 50/60Hz (200 W) Max. 5.6 kW |