

# 8091 - SP500S

## Laser cutting system

### Mechanics

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	95 mm (3.7 in) aluminum cutting grid table and acrylic cutting grid table 98 mm (3.7 in) vacuum table 112 mm (4.4 in) slat cutting table 300 mm (11.8 in) with table removed on an area of 1245 x 610mm (49 x 24 in) – flatness can not be guaranteed without tables
Processing table	Base frame with aluminum grid cutting table (mm or in)
Max. processing speed	2.54 m/s (100 in/s)
Max. acceleration	19 m/s <sup>2</sup> (748 in/s <sup>2</sup> )
Motors	Brushless DC servo motors
Encoder	Incremental measuring system
Optical elements	telescope, mirror, lens
Lens	2.0 in; 2.5 in; 2.5 in CL - for 12.5 mm more clearance to the material 3.75 in rotary lens - additional clearance specifically for rotary engraving; 5.0 in
Repeatability	+/-0.015 mm (0.0006 in), over the whole working area
Addressable accuracy	5 µm (0.0002 in)
Accuracy of part size	Depending on material, process and temperature
Maximum material load	25 kg (55 lbs), load across the entire working area
Interface	Ethernet

### Standard features

Lens	2.0 in
InPack Technology™	Protects working head and all moving parts from dust
Exhaust	Travelling head exhaust; table exhaust (with cutting- and vacuum table)
Software	Trotec Ruby® laser software
Operating console	Touchpanel, keypad, safety-switch, system turnkey
Laser pointer	655 nm, <0.99 mWcw
Autofocus	Automatic focussing via light barrier (for use with standard lens)
Work area light	LED bar
Air assist	System for blowing compressed air for flushing of the mirrors and lenses
Other standard equipment	OptiMotion™, smart electronics, protected laser beam
Industrial interface	Start / Stop / ... signals to control the operation from extern
Screw feet	Additional to the rolls, for a good standing on the ground
Gas-Kit (for compressed air or gas connection)	Control of compressed air (free of mechanical dust, water and oil) max. flow rate 150 l/min (40 gpm) with max. 10 bar (145 psi); max. 5 bar at the laserhead, Compressed air connection Ø 6 mm Air assist with external gas (max. 5 bar)
Ready for Pass-Through	Prepared for the special operating mode pass-through (laser class 4; EN 60825-1)

## Accessories

Rotary attachment	Cone, roller, or combined version, tiltable Max. workpiece length: 104 cm / 41 in (roller) ; 84 cm / 33 in (cone) Max. workpiece diameter: 15 cm / 5.9 in (roller) ; 25 cm / 9.8 in (cone) - depending on lens
Vision Print&Cut	System for precise and accurate cutting of printed applications (Print&Cut)
Pass Through Retrofit Kit	Working area 1245 mm (40 in) x ∞ Loading area 1420 mm (56 in) x ∞
Tables	additionally available are optional: slatted-, vacuum-, acrylic grid cutting table; honeycomb cutting tabletop; aluminum cutting grid tabletop or acrylic cutting grid tabletop
Chiller	Included standard cooler for the 200 W version with temperature control function, lower operating noise, and lower energy consumption
TroCare	Comprehensive package of technical services
Exhaust	Vent Set 400, Vent Set 500, Atmos Pure 600

## Laser

Laser system	Sealed-off CO <sub>2</sub> Laser, maintenance free, wave length 10.6 μm
Laser power	120 W 200 W (maximum pulsed power 440 W)

## Dimensions & Weight

Width x Depth x Height	1925 x 1300 x 1140 mm (780 mm without base frame) 75.8 x 51.2 x 45.0 in (30.7 in without base frame)
Weight	520 - 570 kg / 1150 - 1260 lbs (depending on laser power)

## Safety & Environment

Laser class	CDRH Laser class 2
Interlock	Safety system with Individually checked Interlocks
Certificates	CE compliant, FDA listed
Ambient conditions	Temperature +15 °C to +25 °C or 59 °F to 77 °F Humidity 40 % to max. 70 %, not condensing Dust free environment (2nd degree according to IEC 60947-1)

## Exhaust

Minimum volume required (without piping/tubing)	400 m <sup>3</sup> /h at 3500 Pa Two connections
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## Cooling

Air cooling	Active cooling with fans for 120 W variant
Liquid cooling	Optionally available for 200 W CO <sub>2</sub> laser sources with external water cooler

## Electrical

Voltage and Power	1 ~ AC 230 V, 50/60 Hz; 3.2 kW (120 W)
Requirements	3/N/PE ~ AC 400 V/230 V, 50/60 Hz; 9 kW (200 W)

Subject to change without notice.  
 Errors and omissions excepted.  
 Model identification: SP500C-8091  
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