

» Photon One

CNC Fiber Laser Cutting Machine



DESIGN SPECIFICATIONS

	Photon One (3x1.5)	Photon One (4x2)
Nominal Sheet Size	3,000 x 1,500 mm	4,000 x 2,000 mm
Max. Cut Length (x)	3,100 mm	4,100 mm
Max. Cut Width (y)	1,550 mm	2,050 mm
Max. Cut Height (z)	100 mm	100 mm
Shuttle Table Height	900 mm	900 mm
Max. Workpiece Weight	890 kg	1,570 kg
Max. Acceleration	1 g	1 g
Max. X-Y Vector Speed	170 m/min	170 m/min
Repeatability	± 0.025 mm	± 0.025 mm
Positional Accuracy	± 0.050 mm	± 0.050 mm
Cutting Head	Precitec ProCutter 2.0 (Zoom optional)	Precitec ProCutter 2.0 (Zoom optional)
Machine Access	Front	Front
LiveNest® ⁽¹⁾	✓	✓
LiveControl® ⁽¹⁾	✓	✓
LiveGuard® Anti-Collision	✓	✓
LiveRegen® Power Recovery ⁽²⁾	✓	✓
IRIS® Live Monitoring ⁽¹⁾	✓	✓

LASER SPECIFICATIONS

	2 kW	3 kW	4 kW	6 kW
Control Range	200-2,000 W	300-3,000 W	400-4,000 W	600-6,000 W
Wavelength (nm)	1,070 ± 5 nm	1,070 ± 5 nm	1,070 ± 5 nm	1,070 ± 5 nm
Carbon Steel Max. mm (O ₂)	15	20	20	25
Carbon Steel Max. mm (N ₂)	5	6	8	10
Stainless Steel Max. mm (N ₂)	8	12	15	25
Aluminium Max. mm (N ₂)	8	12	15	25
Brass Max. mm (N ₂)	4	6	8	12
Copper Max. mm (N ₂)	4	6	8	12

POWER SPECIFICATIONS

	2 kW	3 kW	4 kW	6 kW
Input Voltage	415 V, 3 Ph, 50 Hz, PE + N			
Typ. Cutting Input Current ⁽³⁾	36 A	51 A	56 A	76 A
Max. Traverse Input Current ⁽⁴⁾	72 A	82 A	82 A	93 A
Recommended Protection	80 A	100 A	100 A	100 A
Input Power	25.9-51.8 kVA	36.7-58.9 kVA	40.2-58.9 kVA	54.6-66.8 kVA



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MACHINE DIMENSIONS

	Photon One (3x1.5)	Photon One (4x2)
Overall Length	9,910 mm	10,910 mm
Overall Width ⁽⁵⁾	4,410 mm	4,910 mm
Overall Height ⁽⁶⁾	2,305-3,505 mm	2,305-3,721 mm
Overall Weight ⁽⁷⁾	8,000 kg	10,200 kg



INFO

- ⁽¹⁾ If used in conjunction with Procut Professional CAD/CAM Software.
- ⁽²⁾ LiveRegen® is regenerative; under deceleration, power will be returned to the supply network.
- ⁽³⁾ Typical cutting input currents are for cutting at full power at 60 m/min on a 3 x 1.5 machine. Actual consumption may be lower depending on cutting parameters and part geometry.
- ⁽⁴⁾ Max. traverse input currents are for traversing a full speed on a 3 x 1.5 machine. Actual consumption may be lower.
- ⁽⁵⁾ Width shown is for the machine and shuttle table only (filter and laser not included).
- ⁽⁶⁾ Height depends on laser power and the respective filtration system.
- ⁽⁷⁾ Weight shown is for the machine and shuttle table only (filter and laser not included).

