

Swift-Cut

SWIFT-LASER PRO

AN **ESAB**® BRAND



CNC LASER CUTTING SYSTEM
TECHNICAL SPECIFICATION

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Machine Specifications		
1	Type of laser cutting (Fibre/CO2)	FIBRE
2	Machine Model	Swift-Laser Pro 3000
3	Machine Construction	Unitised
4	XY axis speed Interpolated (Meters/Min)	125m/min
5	X1 & X2 Axis Max Speed	85m/min
6	Y Axis Max Speed	85m/min
7	Z Axis Max Speed	50m/min
8	Working Speed for Z-axis	25m/min
9	Machine Acceleration	1G
10	Sheet loading Table height in (mm)	60mm
11	Machine Positioning accuracy in (mm) per meter	± 0.04mm
12	Machine Repeatability (mm)	0.03mm
13	Z Axis Stroke	125mm
14	Z Axis Clearance (mm)	60mm
15	No of axis's	5 (X1, X2, Y, Z, Auto Focus)
16	Axis Transmission	X1, X2 & Y are helical rack and pinion Z-with ball screw
17	Bed size in (mm)	3050 X 1525
18	Machine dimensions (mm) (width x height x depth)	4970 X 2430 X 2228
19	Floor space required (mm) (width x depth) (includes chiller & laser source)	6000 X 7000
20	Fibre Wavelength (Nm)	1064
21	Focus detection (Yes/No) (standard/additional)	Yes. Standard
22	Auto Focus positioning (Yes/No)	Yes. Standard
23	Auto Profile Calibration (Yes/no)	Yes. Standard
24	Auto nozzle Cleaning (Yes/no)	Yes. Standard
25	UPS Rating (KVA)	60 KVA
26	Power Rating (KW)	TBD
27	Is A/C cabin required for Laser Source (Yes/no)	Yes
28	Equipment color	RAL 3020 & RAL 9005
29	Equipment dimensions in (WDXH) mm	Separate document
30	Equipment weight in (kgs)	See end of document
31	Sound levels in (dB)	Less than 80 dB
32	LM Rail & Block	Hiwin
33	Rack & Pinion	YYC
34	Gearbox	Gearko
35	Servo Motor & Drives	Yaskawa
36	Electrical Cabinet	Custom
37	Proportional Valve	Lanny
Software		
38	Smallest Programmable increment (mm)	0.001
39	Software Name	XC6000
40	Nesting	Yes
41	Sheet metal waste calculation	Yes
42	Capacity Of CPU	256GB SSD
43	Make & Capacity of Processor (GHz)	2.5 GHz and above
44	CNC Unit Speed	As per machine spec

Laser Source & Cutting Head		
45	Laser Source Power (W)	3000W/6000W/12000W
46	Laser Source Make	MAX PHOTONICS ELITE
47	Nozzle cleaning type (Auto/Manual)	Auto
48	Focal lens length (mm)	150/200
49	Laser Radiation levels	Class 4 (as per CE norms)
50	Laser cooling type (Air/Water/Gas)	Water Cooled
51	Calibration Function (Auto/Man)	Auto
52	Cutting Head Make	Raytools - BS08K
53	Work sheet end detection (Yes/No)	Yes (Capacitive sensor)
Controller & Intelligence		
54	Machine controllers make	Raytools Smart - XC6000
55	Communications LAN	Yes
56	Can machine accessed by supplier (Team viewer) (Yes/No)	Yes
57	Communications USB	Yes
58	Resuming the cutting (Yes/No)	Yes
59	Max Ambient Temperature (°C)	45 deg
60	Auto cleaning nozzle changer (Yes/No)	Yes
61	Focus detection (Yes/No)	Yes
Product Specification		
62	Max Sheet thickness MS (mm). Not For Production	16mm/25mm/30mm
63	Max Sheet thickness SS (mm). Not For Production	8mm/16mm/25mm
	Max Sheet thickness Galvanised Steel (mm)	3mm/6mm/12mm
	Max Sheet thickness Aluminium (mm)	6mm/14mm/20mm
	Max Sheet thickness Brass (mm)	3mm/6mm/12mm
64	Max Sheet thickness Galvanized iron(mm)	3mm/6mm
65	Max Sheet thickness Aluminum (mm)	8mm/14mm
66	Max Sheet thickness Brass in (mm)	3mm/6mm
67	Max work piece weight (kg)	950kg (3kw/6kw variants. 12kw TBC)
68	Min work piece Size (mm X mm)	150 X 80 mm without micro junction, smaller with micro junction
69	Max. strip length possible to cut with error free dimensions(mm)	3050 mm
Cutting & Laser Gases		
70	Cutting Gas Options	
	Oxygen	Yes – 8-10 Bar
	Nitrogen	Yes – 16-20 Bar
	Compressed Air (excluding filtration)	Yes – 15-20 Bar
71	Gas consumption for Max Thickness (LPM)	1500L/min
72	Oxygen for MS max thickness (Liter/hour)	250L/min
73	Nitrogen for SS max thickness (Liter/hour)	1500L/min
Compressed Air		
74	Allowable Oil content in air (mg/m3)	As per ISO 8573-1:2010
75	Allowable dust particle in air (mg/m3)	As per ISO 8573-1:2010
76	Allowable dew point (°C)	3 Deg C
Conveyor & Pallets		
77	Scrap Tray for collecting parts	Yes
78	Pallet change type	Manual single sliding pallet or Auto pallet changer (12kw only)

Water Chiller		
79	Chiller Model	CWFL-3000/CWFL-6000/CWFL-12000
80	Chiller Make	S & A
81	Max. power consumption (kW)	6.42 / 9.86
82	Chiller compressors make	S & A
83	Chiller Type (Air cooled/Water cooled)	Air cooled
Dust collector		
84	Dust collectors make	Sideros – ECO6
85	Dust collector power rating	3-phase 400v - 7.5kw fan
86	Dust collector preparation	TBD
87	Filtering medias	Cartridge
88	Output air quality	TBD
89	Spark trap in dust collector	YES
90	Dust collector flow rate (Nm3/h)	3600
91	CE for Dust Collector	YES
92	Compressed air input pressure	6-7 Bar
Supply Voltage – 400 V / 50 Hz – European Spec		
93	Frequency	50 Hz
94	Phase	3-phase
95	Power – 3kw	40 kVA (Laser, chiller, machine)
96	Power – 6kw	60 kVA (Laser, chiller, machine)
97	Max current – 3kw	41A (15+16+10) (Laser, chiller, machine)
98	Max current – 6kw	62A (22+31+10) (Laser, chiller, machine)
99	Suggested fuse size – 3kw	63A (Laser, chiller, machine)
100	Suggested fuse size – 6kw	80A (Laser, chiller, machine)
Supply Voltage – 480 V / 60 Hz – US Spec		
101	Frequency	60 Hz
102	Phase	3-phase
103	Power – 3kw	40 kVA (Laser, chiller, machine)
104	Power – 6kw	60 kVA (Laser, chiller, machine)
105	Max current – 3kw	41A (15+16+10) (Laser, chiller, machine)
106	Max current – 6kw	62A (22+31+10) (Laser, chiller, machine)
107	Suggested fuse size – 3kw	63A (Laser, chiller, machine)
108	Suggested fuse size – 6kw	80A (Laser, chiller, machine)
Compliances		
109	Europe	CE
110	North America	FDA + CSA
111	Laser Safety Classification	Class 1 (fully enclosed)
Shipping		
112	Machine weight	5700kg
113	Laser	80 / 160 kg
114	Chiller	TBD
115	Transformer	TBD
116	Stabiliser	TBD
117	Shipping dimensions	See separate document