



Laser Cutting System

Powered by
Synova Laser MicroJet®



Advantages of water jet guided laser machining

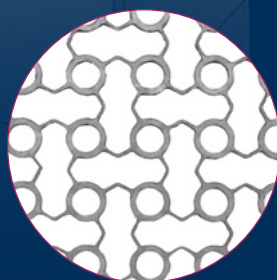
- Parallel kerf walls
- Smooth and clean cutting surfaces
- No focus control necessary
- No heat affected zone

LCS 150/300

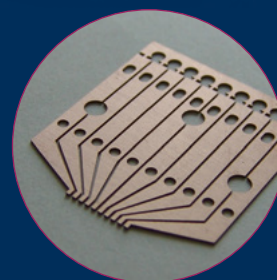
Main Industries and Applications



Watchmaking



Medical



Consumer Electronics



Tool Manufacturing



General Specifications

		LCS 150	LCS 300
Axes			
Working volume	mm (W x D x H)	125 x 200 x 100	300 x 300 x 100
XY axis		Linear motor	Linear motor
Maximum stroke	mm (X,Y)	200 x 200	600 x 400
Accuracy	μm	+/- 5	+/- 3
Repeatability	μm	+/- 2	+/- 1
Maximum XY speed	mm/s	300	1000
Acceleration	G	0.5	1
CNC control (Delta Tau)		2-, 3- or 4-axis	2-, 3- or 4-axis
Laser			
Laser type		Diode pumped solid state Nd: YAG, pulsed	Diode pumped solid state Nd: YAG, pulsed
Wavelength	nm	532/1064	532/1064
Average power	W	20-200	20-200
Beam transmission (optical fibre)	μm (core diameter)	100-200	100-200
Water Pump			
Water flow/ water consumption	l/ h (average)	1/ 10	1/ 10
Water pressure	bar (max.)	500	500
Nozzle diameter	μm	25-80	25-80
Water Treatment System			
Resistivity	M Ω .cm	>15	>15
TOC	ppb	<30	<30
Filtration	μm	0.2	0.2
Utilities			
Electrical power	VAC	3 x 400/ 1 x 230	3 x 400/ 1 x 230
3 phases	Hz	50/60	50/60
Power consumption (total)	kVA (max.)	12	12
Compressed air, oil free	bar	5-6	5-6
Dimensions/Weight			
Dimensions (machine)	mm (W x D x H)	1050 x 800 x 1870	1165 x 950 x 1920
Dimensions (utilities cabinet)	mm (W x D x H)	700 x 2300 x 1600	700 x 2300 x 1600
Weight (machine)	kg	1170	880
Weight (utilities cabinet)	kg	700-750	700-750
Options			
		Rotary axis	
		Z-axis with jet angle correction	
		Chiller	
		Chuck with vacuum	
		CAM + Pattern recognition software	
		High-pressure water pump (800 bar)	
		High-transmission head for high power applications	

The specifications are subject to change without notice due to technical changes. The LCS machines incorporate the worldwide patented technology of water jet guided laser, invented at the Swiss Federal Institute of Technology in Lausanne, Switzerland. These machines conform to CE regulations.



CORPORATE HEADQUARTERS

SYNOVA SA

Route de Genolier 13
1266 Duillier
Switzerland

Phone: +41 21 55 22 600
sales@synova.ch
www.synova.ch

MICRO-MACHINING CENTERS, SUBSIDIARIES AND DISTRIBUTORS IN: CHINA, GERMANY, INDIA, ITALY, JAPAN, MALAYSIA, RUSSIA, SINGAPORE, SOUTH KOREA, TAIWAN, THAILAND, UNITED KINGDOM, USA

Contact information available at: www.synova.ch