



Sahajanand
LASER TECHNOLOGY LTD

EMPOWERING INNOVATION

laser cutting



Fiber Laser (1 μ)
CO₂ Laser (10 μ)



BRAMASTRA
Laser Cutting System



Laser Source Specification[#]

Ytterbium Fiber Laser* (1 μ Wavelength)

Parameters		Unit	YLR-500	YLR-1000	YLR-2000	YLR-3000
CW Power	Operation Mode		CW / QCW	CW / QCW	CW / QCW	CW / QCW
	Nominal Outpur Power	kW	0.5	1	2	3
Beam	Emission Wavelength	nm	1070-1080	1070-1080	1070-1080	1070-1080
	Beam Parameter Product	mm*rad	6	6	6	6
	Output Fiber Core Diameter Of The Feeding Fiber	μm	150	150	150	150
	Fiber Length	m	10	10	10	10
	Polarization		Random	Random	Random	Random
Gas			No Laser Gas	No Laser Gas	No Laser Gas	No Laser Gas
Electrical	Operating Voltage 3-phase	VAC	400-460	400-460	400-460	400-460
	Power Frequency	Hz	50/60	50/60	50/60	50/60
	Power Consumption	kW	2	4	8	12
Cooling	Laser Cooling Water Temperature Range	°C	22-24	22-24	22-24	22-24
	Laser Cooling Water Flow Rate	l/min	5	5	5	5
Environment	Operating Ambient Air Temperature Range	°C	10-50	10-50	10-50	10-50
	Humidity With Built In Conditioner	%	95	95	95	95
	Storage Temperature	°C	- 40 to +75	- 40 to +75	- 40 to +75	- 40 to +75
Dimensions	W X D X H	mm	856 x 806 x 1186	856 x 806 x 1186	856 x 806 x 1186	856 x 806 x 1186
Weight		kg	300	330	360	390

CO₂ Laser** (10 μ Wavelength)

Parameters		Unit	STS 2000	STS 4000	FH 6000
CW Power	Rated Power	kW	2	4	6
	Dynamic Power Range	kW	0-2	0-4	0-6
	Power Stability	%	± 0.5	±0.5	±0.5
Beam	Emission Wavelength	nm	10600	10600	10600
	Beam Mode		"D" Mode	"Q" Mode	"Q" Mode
	Beam Divergence	mrad (half angle)	< 1.5	< 1.5	< 1.5
	Beam Size	mm	15	18	22
	Min. Clear Aperture	mm	18	22	26
	Pointing Stability	mrad	< 0.15	< 0.2	< 0.2
	Polarization	° plane or vertical plane	45	45	45
Pulsing	Hyper Pulse®		CW to 2 kHz	CW to 2 kHz	CW to 1 kW
	Super Pulse		CW to 2 kHz	CW to 2 kHz	Limited
	Gated Pulse		CW to 5 kHz	CW to 5 kHz	CW to 5 kW
Laser Gas	H ₂ , N ₂ & CO ₂ Regulated To	l/hr	25	50	50
	4 bar (60 psi) Each Gas	(cubic ft/hr)	(1.88)	(1.76)	(1.76)
Electrical	Max. Power Consumption At Max. Power (At 460V, 60Hz; 420V, 50/60Hz & 380V, 50/60Hz)	kVA	27	54	76.5
Cooling	Heat Load At 40°C (104°F) Ambient Temperature	kW	22.5	40	58.6
		(BTU/hr)	(76,800)	(136,400)	(178,000)
Environment	Ambient Temperature	°C	0-40	0-40	0-40
	Relative Humidity	%	Upto 95	Upto 95	Upto 95
Dimensions	W x D x H	mm	2844 x 1244 x 1422	3734 x 1321 x 1473	2844 x 1244 x 1575
Weight		kg	1154	1688	1814

All technical specifications are subject to change without prior notice.

* Fiber Laser Power Available (0.5 kW - 4 kW)

** CO2 Laser Power Available (1 kW - 8 kW)

Control & Software

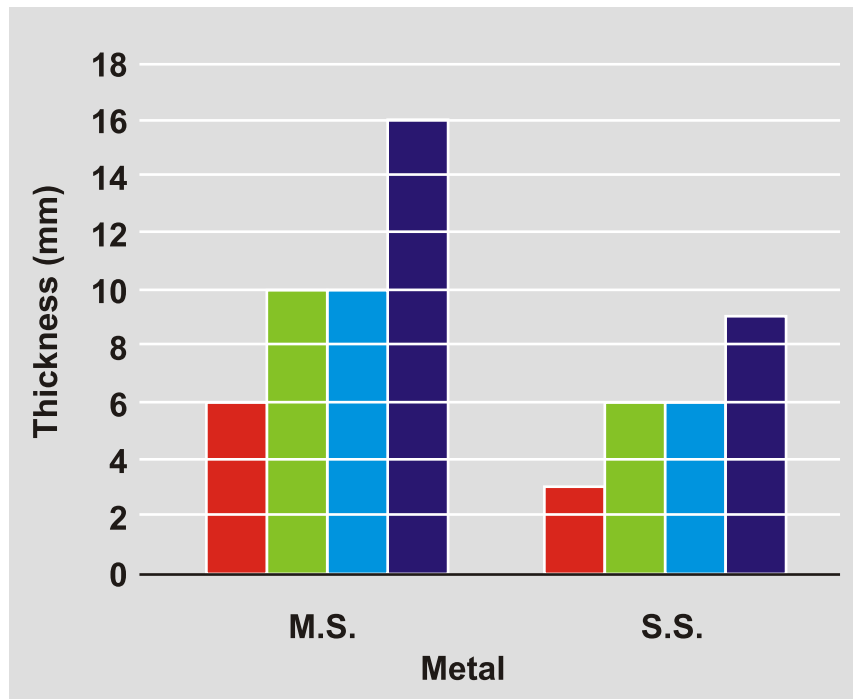
Siemens 840D/840Di PC based controller with easy user interface fully closed loop system. Software displays position & feed information, use cycle directory, alarm messages, tool diameter compensation, program & subroutine directory, cutting parameters etc. Nesting Software is also incorporated to optimize use of material and complete material management. Online help can also be provided via Modem on request.

Controller Specification

Sr. No.	Description	SIEMENS Sinumerik	
		840 Di	840 D
1	Linear Drive	Yes	Yes
2	Clearance Control	Yes	Yes
3	Gantry System	Yes	Yes
4	Simulation	Yes	Yes
5	Hand Held Unit	Yes	Yes
6	Ethernet Port	Yes	Yes
7	USB Port	Yes	Yes
8	RS232 Com Port	No	No
9	Retrace Mode	No	Yes

System Specification[#]

Sr. No.	Parameters
1	Working Area X-axis Y-axis Z-axis
2	Max. Workpiece Weight
3	Max. Positioning Speed Axis Parallel (X) Axis Parallel (Y) Simultaneous (X & Y)
4	Accuracy^{*1} Smallest Programmable Increment Positioning Accuracy Repeatability
5	Electrical Consumption^{*2}
6	Cutting Gas Consumption^{*3}
7	Dimensions and Weights^{*4} Length Width Height Weight



CO₂ 1000W Fiber 1000W CO₂ 2000W Fiber 2000W

Options

Scrap Removal Conveyor
Motorized Table
Dual Pallet Changer
Autoloading and Unloading System
Rotary Axis for Tube Cutting

Additional Features

Piercing Detection
Auto Nozzle Cleaning & Calibration
Motorized Lens
3D Cutting (5-Axis Head)

Unit	LD 3015	LD 4020	LD 3015 (ECO)	RP 2512	RP 3015	RP 4020	RP 6020	RP 6525
mm	1500	2000	1500	1250	1500	2000	2000	2500
mm	3000	4000	3000	2500	3000	4000	6000	6500
mm	150	150	150	150	150	150	150	150
kg	750	1350	750	650	750	1350	3000	3000
m/min	100	100	60	60	60	40	20	20
m/min	200	100	60	85	85	56	28	28
m/min	220	140	89					
mm	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
mm	±0.050	±0.050	±0.050	±0.100	±0.100	±0.100	±0.100	±0.100
mm	±0.020	±0.020	±0.020	±0.030	±0.030	±0.030	±0.030	±0.030
kW	25-36	25-36	16-25	10-16	10-16	16-25	25-36	25-36
l/hr	500-2000	500-2000	500-2000	500-2000	500-2000	500-2000	500-2000	500-2000
mm	9500	11500	9500	8200	9500	11500	16500	16500
mm	4900	5900	4900	4000	4900	5900	6500	6500
mm	1900	1900	1900	1900	1900	1900	2000	2000
kg	10500	12500	10500	8000	10500	12500	20500	20500

All specifications are subject to change without prior notice.

*1 Value Measured over 1m.
Workpiece tolerances depend upon the workpiece type, pre-treatment, sheet size and location in the working area.

*2 Inclusive of suction, control & cooling unit.

*3 Depends upon requirement.

*4 Approximate values

From light to technology

The future is light - hardly any other company can focus on "light" the way SLT Ltd can.



Sahajanand Laser Technology Ltd (SLT Ltd) is leading manufacturer of laser systems for cutting, welding, marking, micro-machining, diamond processing, etc in India since 1992.

SLT Ltd is an ISO 9001: 2000 certified company, having more than 450 team members & 6 manufacturing works in India, USA, Germany & China.

SLT Ltd has supplied more than 2000 laser systems & exporting to more than 18 countries. It has an international presence at USA, UK, Germany & China.

SLT Ltd proudly presents the High Power Fiber Laser Cutting System "BRAHMASTRA" series for sheet metal working industry with faster laser cutting & lower cost of ownership.



Laser Cutting Head

Leader in **LASER** technology

Supplied more than **2000** laser systems



Controller



Compact Chiller



3D (5 Axis) Cutting Head



Dual Pallet Changer



Ytterbium Fiber Laser Source

Applications

Precision Sheet Metal Fabrication
Complex Shape Cutting
Prototype Development
Faster Cutting With High Accuracy
Batch Production

Industries



Automobile

Precision Components
Cutting
Doors & Car Panels
Trimming of Dies
Tailored Blanks Mfg
Hydro-Formed Automotive
Frames Cutting



Consumer Durables

Air-conditioner
Refrigerator
Washing Machine
Microwave Oven
Water Purifier
Shelf, Locker & Appliance
Mfg



Machinery & Capital Goods

CNC Machinery
Construction & Earth
Moving Equipment Mfg
Textile & Pharma Machinery
Packaging Machinery
Dairy & Food Processing
Machinery
Boiler & Heat Exchanger Mfg
Bottling & Filling Plant
Machinery
Cooling Towers



Electrical, Electronics & IT

Control Panels
Computer Hardware
PC/FAX/EPBAX
Telecommunication
Towers & Equipments
Switchgear Panels



Defense & Aviation

Armour Vehicle Mfg
Battle Tanks Mfg
Space Shuttle
Ship Building
Sheet Metal Components
for Aircraft, Rocket &
Missiles



Head Office-Marketing :

41, New York Tower-A, S.G. Highway, Thaltej,
Ahmedabad-380 054 Gujarat, India.
Ph. : +91.79.2685 4537 / 38
Fax : +91.79.2685 4539

E-mail : sales@sahajanandlaser.com
Website : www.sahajanandlaser.com

Works :

E-30, G.I.D.C.,
Electronic Estate, Sector - 26,
Gandhinagar - 382 028, (Guj.)
Ph. : +91.79.2328 7461 / 68
Fax: +91.79.2328 7470

Works (SEZ) :

Plot No. 29 & 58, Special
Economic Zone (SEZ),
Sachin. Surat-394 230. (Guj.)
Ph. : +91.261.2398 411
Fax : +91.261.2398 419



UK :

SLT Ltd.
Unit 2, Kingsbury Works Estate
Off Kingsbury Road
Kingsbury, London NW9 8UP
Ph. : +44 (0) 208 358 3535
Fax : +44 (0) 8201 3882



USA :

SLT USA Inc.
2500 E Shady Grove Rd,
Irving, TX 75060, USA
Ph : +1-972-790-7610
Fax : +1-972-986-3135



Germany :

SLT GmbH
Am Schaubacher Berg 25
64401 Gross-Bieberau
Germany
Ph. : +49.(61 62).809.0
Fax : +49.(61 62).809.100



China :

Guangzhou Sajiada Jewellery Manufacture Co. Ltd.
C8, Shawan Jewellery Industrial Park,
Shawan, Panyu District,
GuangZhou, China - 511 483
Ph. : +86.20.3483 0001
Fax : +86.20.3483 0004