

Pulsed Nd:YAG Laser System

Laser Solutions For Advanced Manufacturing



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Suresh Indu Lasers offers various high & low power Pulsed Nd:YAG laser Systems for precision Cutting, Hole Drilling, Spot and Seam welding on various metals. These lasers are used in wide range of material processing & industrial applications for the production. Various Models are available with pulse energy from 100mj to 70 joules and average power from 20 watts to 500 watts.

Advantages

- Low heat input
- Reduced distortion
- No mechanical forces
- No tool wear
- Consistent weld penetration
- Stable Laser Power
- High precision
- Easy to operate

Appln

Automotive, Telecommunication, Electronics, Medical, Jems & Jewellery

Features

- Pulsed Nd:YAG laser head
- Laser power Supply Unit
- Mechanical support Frame
- Optical beam delivery system
- Assistant gas nozzle
- Water cooling unit
- Control software : Complete microprocessor based controlling system. RS-232 connectivity to control the complete system by computer Pulse width variation from 0.1 to 20mSec Repetition rate from 1 to 500Hz
- MultiAxis CNC motion system total integration with YAG laser
- 3 Axis work table of various sizes as per customer requirement & Appln.
- Accuracy: 0.01mm
- Repeatability: 0.01mm
- Motors: Micro stepping motors 2 phase / AC Servo Drive
- Controller: 4 axis controller, XYZ and Rotary motion., 32MB Built-in Memory, 4 X 16 digits Display with Remote key pad, with start, stop, jog, file change option.
- Includes 32MB Memory buffer, and software to print directly from Corel Draw, Adobe, AutoCAD and many more.
- Includes Pentium 4, 2.4 GHz with standard configuration

Optional

- CCD Camera for viewing the cutting drilling or welding online
- Laser Alignment System
- Laser Power Meter.
- Nozzels set for processing on different material.
- Rotational Motion Unit
- 5 Axis Welding system
- Fiber optic Beam Delivery system can be attached to any CNC vertical milling machine.
- Multiple fiber delivery is possible from a single laser source so that one laser can be used for multiple processing
- Fiber optic beam delivery systems are available in Two options. One is Stepped Index fiber (Si) and Graded Index Fiber (Gi)



Laser Cutting on 0.8mm material



Models

MODEL	SLP-20	SLP-40	SLP-100	SLP-150	SLP-200	SLP-300	SLP-400	SLP-500
Wavelength	1064nm							
MAXIMUM OUTPUT POWER (W)	20	40	100	150	200	300	400	500
PULSE ENERGY (J)	0.2 - 25	0.2 - 75	0.1 - 75	0.1 - 90	0.1 - 90	0.1 - 90	0.1 - 90	0.1 - 100
Max. POWER (kW) CONSUMPTION	2	2.5	5.5	5.5	9	9	18	18
PULSE DURATION (mS)	0.5 - 20	0.5 - 20	0.5 - 20	0.5 - 20	0.5 - 20	0.5 - 20	0.5 - 20	0.5 - 20
PULSE REPETITION RATE (Hz)	1-100	1-200	1-300	1-300	1-300	1-300	1-500	1-500
Max. PULSE POWER (kW)	5	5	5	7	7	7	9	9
BEAM QUALITY (mm. mrad)	8	8	16	16	16	16	16	25
Max. Cooling Water Consumption at 15°C (m3/h)	air Cooling	0.2	0.4	0.4	0.5	0.5	1.0	1.0
Cooling Water Temperature range (°C)	----	18 - 25	18 - 25	18 - 25	18 - 25	18 - 25	18 - 25	18 - 25
ELECTRICAL CONNECTION	230V 56/60Hz 16A	400V±10% 3P+N+E 56/60Hz 16A	400V±10% 3P+N+E 56/60Hz 16A	400V±10% 3P+N+E 56/60Hz 16A	400V±10% 3P+N+E 56/60Hz 32A	400V±10% 3P+N+E 56/60Hz 32A	400V±10% 3P+N+E 56/60Hz 63A	400V±10% 3P+N+E 56/60Hz 63A



For Further Details Please Contact:

SURESH INDU LASERS PVT. LTD.

Mfrs of Lasers, Optics & Electro-Optics Instruments.

266, Bhavani Peth, 1/2, Durga Society,

Pune - 411042 Maharashtra (India),

Tel.: 91-20-26962062 Fax: 91-20-26961708

Office: 91-20-56214374 / 3

Email: silaser@giaspn01.vsnl.net.in,

Web: www.silasers.com

Dealers/Branch

