

JK125P, JK300P & JK300HP

A New Generation of JK Pulsed Nd:YAG Lasers



A new addition to the award-winning JK family of pulsed, Nd:YAG lasers combines higher peak powers with shorter pulse lengths for increased flexibility and maximized process control for faster, more precise welding and fine cutting applications.

- Most compact footprint in class
- Faster control interfaces and complete cycle programming triggered by a single command through our unique LaserView™ control technology
- Class-leading reliability and built-in back reflection protection with our patented Luminator™ plug-and-play fiber optic delivery system
- Tighter process control and reduced costs with our “pulse shaping” feature via our patented switch-mode power supply
- Fully integrated time- and energy-share options



**Production proven,
with important new
field-tested enhancements**

The award-winning JK700 series of Nd:YAG lasers has long been the benchmark by which pulsed Nd:YAG laser performance has been measured. In our new generation JK-HP and P Series lasers, GSI Group has combined over three decades experience in industrial laser manufacture with enhanced technologies for the best overall value, dependability, and cost of ownership for users of pulsed lasers.

Spanning a range of power levels, the JK-HP and P Series marks the introduction of a number of valuable features as standard across the JK product line, enhancing performance and process efficiencies while reducing integration and operating costs, training, and parts holding requirements for all users. These include such unique JK features as: LaserView™ control technology, enabling complete cycle programming triggered by a single command, patented Luminator™ fiber optic beam delivery with back-reflection protection; pulse shaping capability for tighter process control; faster shutter interface for

quicker response on parameter changes and more precise timing in time-share mode; and fully integrated time and energy shares for faster switching and reduced maintenance costs.

Backed by GSI Group's industry-leading applications expertise and worldwide support network, these reliable lasers will work harder than ever for you.

Performance Data

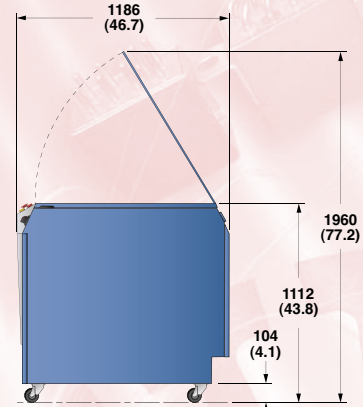
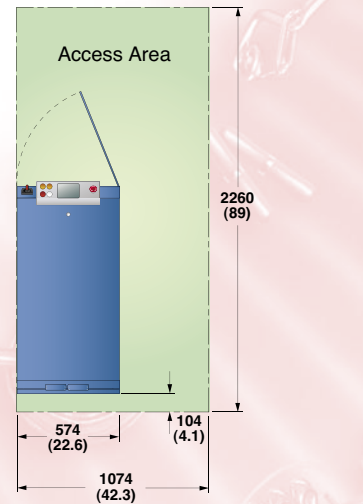
Model	Single Lamp		Twin Lamp
	JK300P	JK125P	JK300HP
Max. Average Power at Laser ¹ (W)	300	125	300
Typical Power at Workpiece (W)	250	100	250
Max. Peak Power ¹ (kW)	5	2.3	9
Max. Pulse Energy ¹ (J)	40	17	56
Max. Frequency	1000		
Pulse Width Range (ms)	0.2 - 20		
Pulse to Pulse Stability*	± 3%		
Shutter Opening Time (ms)	<50		
Beam Quality ² (mm.mrad)	16	7	16
Standard Fiber Diameter (µm)	300	150	300
Standard Fiber Lengths (m)	5, 10, 15, 30	5, 10, 15	5, 10, 15, 30
Beam Delivery Options	Up to 4T or 3E or 2Tx2E combination		
Max. Recollimating Lens Focal Length With 60mm square output housing (mm)	200		
With 40mm square output housing (mm)	100		

* High stability version on request.

Environmental Data

Model	JK300P	JK125P	JK300HP
Cooling Water Requirements @ 15°C input	15 l/min 4.0 US gal/min	10 l/min 2.5 US gal/min	22 l/min 5.8 US gal/min
Cooling Requirement (kW)	9.5	6	13.7
Max. Pressure Drop (bar min.)	2		
Max. Inlet Pressure (bar max.)	6		
Electrical Requirements	380-415 V +/-10% at 50/60 Hz		
Supply Rating (kVA)	11	8	15
Max. Power Consumption (kw)	9.5	6	13.7
Ambient Temperature (°C)	5 - 40		
Humidity	95%RH at 20°C, 50%RH at 40°C		
Weight (kg)	224	222	266

1. Rated at the resonator at end of lamp life 2. Halfangle radius



Dimensions in mm (inches)

Standard Compliance: CE, CDRH

Specifications are subject to change. Please consult Product Center for complete details.

www.gsig.com/lasers



Product Center
Cosford Lane, Swift Valley
Rugby, Warwickshire
CV21 1QN, England
TEL: +44 (0) 1788 532611
FAX: +44 (0) 1788 532617

For sales information, visit our web site
or contact your local distributor.

E-mail: lasers@gsig.com

