# VGEN-ISP Fiber Lasers

## The VGEN-ISP Advantage

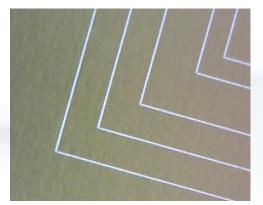
- Up to 50 W average output power
- High pulse energy: Up to 1.3 mJ
- Excellent beam quality: M<sup>2</sup> <1.3
- Up to 40 kW peak power
- 2–300 ns tunable pulse width
- 35–500 kHz (tunable) repetition rate
- Optional output collimators for variety of output beam diameters
- Pulse shape capabilities are available

# EXCEPTIONAL COMBINATION OF HIGH PEAK POWER, EXCELLENT BEAM QUALITY AND TUNABLE PARAMETERS

Spectra Physics Tel-Aviv's VGEN-ISP lasers are short-pulse, Ytterbium fiber lasers in MOPA configuration. Incorporating leading edge technology, the VGEN-ISP series provides top performance in a wide range of precision-intensive industrial applications such as micro-machining, fine processing, marking, scribing and more. The VGEN-ISP's offers high beam quality, very high peak power and high pulse energy, VGEN-ISP's lasers are competitively priced yet offer the full range of specifications to meet a wide range of applications.

With low weight and small size, the VGEN-ISP series is easily deployed. Housed in a robust assembly that meets industrial standards and fitted with a metal armored fiber cable, VGEN-ISP lasers deliver a high quality, near diffraction-limited output beam. The VGEN-ISP's solid construction is maintenance free and reliable, ensuring long-life operation at low operational cost.

#### Marking and Micromachining Application



#### Applications

- Fine marking
- Material's fine processing
- Micro-machining
- Scribing and deep engraving
- Thin film cutting
- Solar cell and Silicon scribing and processing



# VGEN-ISP Fiber Lasers

# Specifications<sup>1</sup>

	VGEN-ISP-20	VGEN-ISP-1-20	VGEN-ISP-1-40-30	VGEN-ISP-1-40-50				
Operational Mode	Pulsed							
Wavelength	1060 - 1080 nm							
Average Output Power	20 W		30 W	50 W				
Repetition Rate (Tunable)	35 - 500 kHz							
Pulse Width	5 - 100 ns	2 - 1	2 - 300 ns					
Pulse Energy (Max)	450 µJ	500 µJ	لµ 600	1300 µJ				
Peak Power (Max)	15 kW	20 kW	40 kW	40 kW				
General Characteristics								
Operational Voltage		24 VDC						
Operating Temperature	5 - 40 °C							
Dimensions	95 x 195 x 282 mm							
Weight	5.9 Kg							
Wall-Plug Efficiency	> 20 %							
Fiber Length	300 cm (other options available)			cm				
Output Fiber Collimator	7.5 +/-1mm (4, 6, 7.5, 9, 11)							
Output Beam Parameters		<1.5						

1. Due to our continuous improvement, all specifications are subject to change without notice.

## About Spectra-Physics Tel Aviv

Spectra-Physics Tel Aviv develops, manufactures and markets high quality innovative laser systems for a wide range of industrial applications. The company's laser systems are the product of extensive experience and the cutting-edge know-how that Spectra-Physics Tel Aviv's professional team has developed over the years.

In the industrial field, the company develops and manufactures pulsed Ytterbium, Thulium, Erbium, Green and UV fiber-lasers for such applications as micromachining, fine processing and marking. Spectra-Physics Tel Aviv's short pulse versions are also implemented in LIDAR and range-finding.

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