



# L1-RC-Y1070-SM

New line of single-mode lasers with power up to 2 kW

**NEW!** Perfect for 3D SLM printing

The highest beam quality for precision processing

Russian manufacturing and technical support

Ready to work with highly reflective metals (copper, brass)



## Applications

- ▶ Precision cutting
- ▶ Welding of highly reflective metals
- ▶ Drilling of through holes
- ▶ Laser perforation
- ▶ 3D SLM printing



## Distinctive features

- ▶ Output power up to 2 kW
- ▶ Beam quality  $M2 < 1.1$
- ▶ Back-reflection protection system
- ▶ Standard optical QBH connector
- ▶ The most compact and lightweight housing available
- ▶ Wall-plug efficiency over 40%

The L1-RC-Y1070-SM series comprises the industry's most compact continuous-wave single-mode fiber lasers of the kilowatt range, combining the latest advances and thirty years of experience of VPG LaserONE in laser technology. The small core diameter of the light-guiding fiber delivers the highest beam quality ( $M2 < 1.1$ ) and makes it possible to focus high-power laser radiation into the narrowest beam achievable. Thanks to these properties, single-mode lasers are widely used for precision laser cutting, productive and accurate 3D SLM printing, and for welding highly reflective metals. Internal self-diagnostics, the highest component reliability and a long warranty period ensure maximum confidence and control over production.



# L1-RC-Y1070-SM

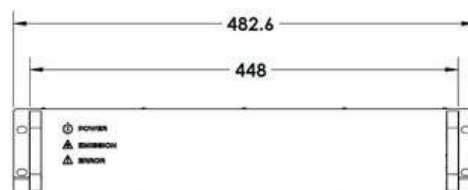
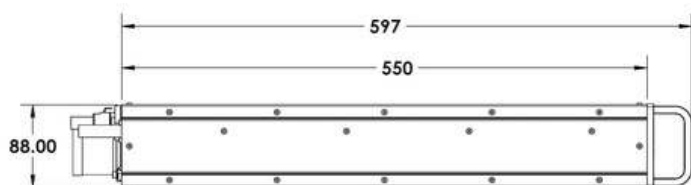
New line of single-mode lasers with power up to 2 kW

| Optical specifications        | 500                    | 1000 | 1500 | 2000 |
|-------------------------------|------------------------|------|------|------|
| Central wavelength, nm        | 1070 ± 10              |      |      |      |
| Operating mode                | Continuous / modulated |      |      |      |
| Modulation frequency, kHz     | Up to 50               |      |      |      |
| Maximum average power (CW), W | 500                    | 1000 | 1500 | 2000 |
| Power tuning range, %         | 10-100                 |      |      |      |
| Radiation power stability, %  | ± 1                    |      |      |      |
| Pilot laser                   | Yes                    |      |      |      |
| Beam quality M2               | <1,1                   |      |      |      |

| Technical specifications                       |                                   |
|------------------------------------------------|-----------------------------------|
| Overall dimensions (W × D × H), mm             | 2U for a 19" rack, 448 × 550 × 88 |
| Weight, kg                                     | 30-40                             |
| Cooling                                        | Water                             |
| Supply voltage, VAC                            | 1-phase, 50/60 kHz, 200-240 V     |
| Power consumption, W                           | 2500-5600 3700 5000               |
| Permissible ambient humidity range, % 10 to 90 | 10 до 90                          |
| Operating temperature range, °C                | 10 до 50                          |

The L1-RC-Y1070-SM lasers are certified to the EAC standard. VPG LaserONE produces a full range of optical components, including fiber-optic cables and optical elements, collimators, beam combiners and switches, as well as solutions for controlling technological processes and tooling. The laser is fully compatible with interchangeable collimators and process heads from VPG LaserONE thanks to the standard QBH HLC-8 connector.

Learn more and choose the best by contacting us in any way convenient for you.



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# GLOBAL LEADER IN THE LASER INDUSTRY

VPG LaserONE is a Russian company founded by the outstanding Soviet scientist Valentin Pavlovich Gapontsev, founder of the international science and technology corporation.

VPG LaserONE develops and serially produces high-efficiency fibre lasers and amplifiers, optical components, assemblies, modules, instruments, subsystems and systems for:

- Industrial laser cutting, welding, cladding, alloying, heat treatment, marking and cleaning systems.
- Scientific research.
- Fibre-optic, atmospheric and satellite optical communications, cable television.
- Surgery and biomedicine.
- Optical ranging and remote monitoring of industrial facilities and the atmosphere.
- Measurement and control systems, sensors.

In order to introduce innovative laser technologies into production, VPG LaserONE has for many years worked closely with leading domestic machine-building, metallurgical, railway and motor transport enterprises and supplies its customers with more than 600 types of ultra-high-technology laser equipment. Many devices and systems have no equivalents on the world high-tech market. All key components of fibre laser technology are manufactured in-house, which delivers:

- Fast product development.
- Efficient production methods.
- The industry's best product delivery times.
- More advanced and higher-quality solutions.
- The highest wall-plug efficiency, which reduces overall energy consumption and costs.



## LASERNEXT



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## 1992

Foundation date



## 1,500+

employees



## 500+

R&D  
specialists



## >60 000 m<sup>2</sup>

facilities



## 100+

patents



## 90%

component  
localization