

Choose Synrad

Synrad is one of the most respected names in the world of industrial lasers. Since the introduction of the first sealed all-metal tube, RF excited CO₂ laser in 1984, Synrad has been known for innovation, quality, and industry best global service. We are CO₂ laser experts; we understand laser parameters and use our Applications Labs to determine their specific impact on applications and materials. We are committed to innovation and customer success; the laser we recommend for your specific application will deliver the results customers are seeking.



Reliable

More than 250,000 Synrad lasers have been shipped since 1984, many operate each day in the most challenging industrial environments. From high humidity to poor cleanliness to fluctuating hot and cold conditions, Synrad lasers continue to perform in the real world with minimal interruption year after year. We test our lasers with some of the most sophisticated test and measurement equipment available - vibration, drop/shock, heat cycling, humidity, power stability, and more - to meet or exceed global industry standards.



Precise

We focus on meeting the needs of our customers by understanding their specific application, and delivering a reliable laser that generates a highly refined beam with very precise performance characteristics. From the economical low-power 48 and v Series, to the precise, compact mid-power ti Series, and the innovative p Series with exceptional peak pulse energies, Synrad delivers unmatched performance and value.



Fast

Customers choose Synrad because we quickly deliver lasting solutions to their process challenges. We are quick to respond to our customers before, during, and after installation to ensure optimal performance of both our lasers and our team. Original equipment manufacturers (OEM) and systems integrators worldwide rely on Synrad to deliver on-target laser solutions that are reliable, scalable, and consistent to ensure their customers' success.



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Precision CO₂ Lasers For High Speed Textile Cutting Systems

SYNRAD

A broad range of high performance CO₂ laser sources and integrated cutting and perforating sub-systems for textiles.

Reliable...Precise...Fast

Cutting, perforating, and marking a wide range of textiles requires specialized CO₂ lasers to minimize charring and edge-melt while ensuring the highest possible line speed. Synrad solves these challenges with high performance CO₂ lasers available in a wide range of output power levels, multiple wavelengths, and pulsed wave options engineered for high-speed cutting and perforating. All Synrad lasers feature the time-tested sealed metal tube design providing reliable operation year after year, saving significant time and resources.

- **Overcome dragging and snagging to maximize line speed** - a laser cutting and perforating system never comes in contact with the target material. Laser cutting systems improve line speeds by eliminating the dragging and snagging associated with traditional mechanical cutting equipment.
- **Reduced Operating Costs** - there are no cutting blades to replace, or shelves filled with expensive die boards, and test stock is minimized. Laser cutting and perforating systems are self-contained and digitally controlled for consistent results.
- **Reduce Maintenance Costs** - with no mechanical parts to wear, or blades to sharpen, the cost to maintain a laser cutting and perforating system is minimal. Synrad p250 and p400 lasers include web-based performance monitoring to manage laser operation and ensure optimal performance, avoiding costly downtime associated with emergency repairs.

Synrad's wide range of high performance CO₂ lasers is a major plus for original equipment manufacturers (OEMs) and system integrators. Consistency across Synrad's laser families makes integration and system upgrades easier, and engineers and technicians can rely on operational similarities and the same high quality laser beam across all models.

All Synrad lasers are designed, engineered, and manufactured in one facility located in Washington state. Having one centralized operation enables our entire team to work closely with one another. Design engineers walk onto the manufacturing floor to work alongside production teams to quickly solve challenges. This unique ability is invaluable for our customers; questions are answered quickly and challenges are met with hands-on tested solutions.

Laser Processing Sub-systems, The Novanta Advantage

Synrad is part of the Novanta family of companies, a leading global supplier of core technology solutions that give OEMs a competitive advantage. Working with partner companies that specialize in photonics and precision motion we can engineer sub-systems that deliver extreme precision and reliable performance, all tailored to our customer's applications. We share a common commitment - innovation and customer success.



The Synrad p Series - a family of pulsed wave CO₂ lasers - engineered for faster processing speeds and precise cutting with minimal charring. The p Series lasers deliver exceptional peak power with superior beam quality for maximum cutting and perforation control.



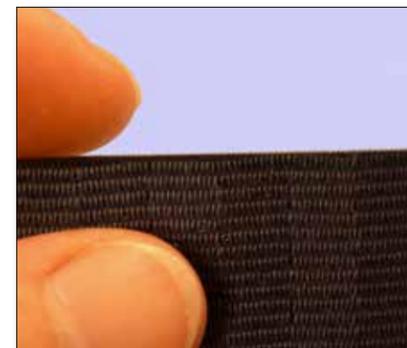
Precision Cutting - requires a laser with good power density stability to control cutting and higher output power to maximize line speed. Recommended lasers include the **p Series, i Series, and f Series**.



Perforating for Breathe-ability - requires a laser with higher peak power and fast rise/fall times to avoid discoloration and charring. Recommended lasers include the **p Series**.



Pattern Engraving - requires a laser with higher continuous power and fast rise/fall times to avoid discoloration and charring. Recommended lasers include the **ti Series, f Series, and i Series**.



Edge Seals - requires a laser with higher laser continuous power for faster throughput speed. Recommended lasers include the **i Series, f Series, and p Series**.



Marking/Branding - requires a laser with excellent beam quality for crisp marking and higher continuous power for faster throughput speed. Recommended lasers include the **ti Series, vi Series, and 48 Series**.



Ablation - requires a laser with excellent beam quality for precise material removal power and higher continuous power for faster throughput speed. Recommended lasers include the **ti Series, f Series, and i Series**.