



SAFETY • SERVICE • SAVINGS
A TRUST BUILT FOR STUDENTS

LASER CUTTER SAFETY

QUICK REFERENCE GUIDE

Laser cutters have become common, useful tools for schools, allowing students and teachers to make everything from specialty design items to cutting out the hull structure for a functional boat.

As with all technology, safety rules and precautions must be taught and followed.

All equipment must be installed, used and maintained according to manufacturer's recommendations.



SAFETY PRECAUTIONS

EYE SAFETY is the number one concern when working with or near a laser. The pulse of a laser is so fast it can cause severe damage to the eye in a flash of a second. Although rare, these injuries are permanent. Engineering controls are the preferred method of protection but cannot be relied on as the only protection. Protective eyewear is necessary when working with lasers, especially during the alignment of a beam.

ENGINEERING CONTROLS, such as protective housings, remote controls or enclosed laser-beam paths, ensure protection for laser operators except when the operator is setting up, adjusting or maintaining the beam. Technicians are most at risk for serious injury. The Laser Safety Officer (LSO) is responsible for monitoring and enforcing the control of operation, maintenance and service.

OPERATION - Lasers and laser systems are classified based on the level of laser radiation accessible during intended use.

MAINTENANCE - Certain tasks are necessary to ensure routine performance of the laser, including frequent cleaning and replenishing of expendables. Maintenance usually does not require beam access.

SERVICE includes less frequent tasks such as replacing laser resonant mirrors and repairing faulty components, and usually requires laser beam access. The manufacturer should supply instructions for safe operation; the LSO must provide any additional safety instructions to employees.

Questions?

Contact [PACE Risk Management](#)

PACE RISK MANAGEMENT

800-285-5461 • [PACE.OSBA.ORG](#) • [RISKMANAGEMENT@SDAO.COM](#)