

## **Laser Level 2 - Advanced Applications**

Series Applications Course - 3 Days

**The Advanced Applications Course will cover advanced cutting principles and features of the current model LVP and older model LZP and LXP series Mitsubishi Laser machines. It is primarily designed to provide the seasoned operator user with a good knowledge foundation of the advanced features and specific controls necessary to troubleshoot and run more demanding Laser jobs and utilize the full potential of the machine.**

### **Description:**

The Advanced Application Course begins with an introduction to the advanced NC features and functions of the controller that will help in part processing, cutting and troubleshooting. This lecture will be followed by a demonstration and class lab with a review of work piece preparation fundamentals and will allow each student to actually use the advanced features of the machine. Each student will review the proper methods of nozzle centering, beam focusing, and height calibration as well as learn shortcuts and trouble shooting methods for setup problems. Students will be given time on the equipment to perform the above setup procedures. They then will have the opportunity to cut several parts in varied thickness and complexity. During these labs they will be shown how to diagnose the cut and make changes in the cutting condition. The student will be shown how different pierce routines can reduce processing time and lead-in techniques that reduce cutting problems when starting into a cut as well as common programming difficulties. High speed cutting of thin material with 5" focal length lens as well as cutting up to 1 inch thick mild steel plate will be covered. Cutting techniques and tips for cutting 3/8" Aluminum and 1/2" Clean Cut Stainless Steel will also be concentrated on in the program. Height Sensor, Machine and Cutting Parameters as well as Editing tips will greatly aid in processing and recovering from problems while processing a job. Students will be able to bring programs and examples of parts real world topics that they have had trouble processing to learn troubleshooting techniques and strategies from our veteran applications personnel.

### **Who should attend:**

This course is designed for operators who have either attended the Machine Fundamental course or operated the equipment for at least one-year. Assuming that the attendee has previous equipment familiarity there will be only a limited review of basic functions and controls. Operators must be comfortable setting up and operating the machine without the help of machine manuals or operation notes. A understanding of the most common G and M codes used in programming is required.