Metal Fabrication and Joining PDP Training

The Metal Fabrication and Joining Program would like to initiate a training program for PDP opportunity. We will have a five part Metal Fabrication Equipment operation and programming training, consisting of five two-hour sessions. The equipment will include; CNC Plasma Cutting System, Plasma Arc CNC Programming, CNC Press Brake, CNC Tubing Bender, Vertical Power Feed Band Saw, Hydraulic Shear, and Hydraulic Iron Worker.

**CNC Plasma Arc System Operation – 2 hour session**

 The Metal Fab / Joining shop will be demonstrating Retro Systems - CNC Plasma & Oxy-fuel Profile cutting, MINI HORNET-HD. Precision CNC Profile Cutting Machine for Plasma & Oxy-fuel processes, heavy duty machine design. Heavy duty AC servo Drives. Hyper-Therm CNC Control with a 56 shape library installed. It will cut up to 1’1/2 inch thick metal.

**CNC Plasma Arc System Programming – 2 hour session**

Part 2 of Plasma Arc CNC Cutting machine operation. In this session you will learn the steps necessary for creating custom parts on the CNC plasma cutting machine. You will learn basic factions of AutoCAD, how to save you’re drawing in the correct format and store it to your flash drive, and install your custom part into the CNC data base. Upon completion of Part 1 and Part 2 of plasma arc cutting you will have a good understanding of machine operation and programming.

**CNC Hydraulic Press Brake – 2 hour session**

This session will address the safety protocol when operating the hydraulic press brake, and machine use and limitations. Machine start-up, use of the safety side curtains, tooling safety and minimum requirements, tooling set-up and brake-down, and machine shut-down will be covered. Operation using the foot control panel, as well as programming and operation using the CNC controls will be covered.

**Hydraulic Tubing Bender – 1 hour session**

You will learn how to operate and program the hydraulic tubing bender. You will go over the process of bending: Square stock, square tubing, and pipe. At the end of this session you will have the basic knowledge of how to use the hydraulic tubing bender.

**Vertical Power Feed Band Saw – 1 hour session**

The Metal Fab & Joining shop will be demonstrating the Kalamazoo Tilt Frame Miter Band Saw. This is a vertical band saw with a head that tilts from 45 right to 30 degrees left Digital display of miter angle, and Large Cutting Capacity. It is Easy to load and unload material, easy to reach front mounted controls. Digital display for precision miter cutting. Variable Hydraulic cutting control pressure. Variable hydraulic cutting pressure Control Panel - front mounted. Huge work area. Tension control for blade It has Variable Speed rive Precision saw bow guidance. 450 LPV includes hydraulic vise.

**Hydraulic Shear – 1 hour session**

This 2 hour workshop is designed for the professional staff of GNBVT. It will provide and introduction to the equipment and its uses, as well as short practical lesson. The students will complete a written safety test prior to using this equipment to cut squared and rounded shapes. It is a hands-on experience with a strong emphasis on safety and the skills needed to shear materials for a fabricated a project.

**Hydraulic Iron Worker – 1 hour session**

This 2 hour workshop is designed for the professional staff of GNBVT. It will provide and introduction to the equipment and its uses, as well as short practical lesson. The students will complete a written safety test prior to using this equipment to shear and punch holes in metals. It is a hands-on experience with a strong emphasis on safety and the skills needed to provide materials for a fabricated a project.