

## General Safety

When using metal fabrication tools, some safety precautions should be followed. Some of the tools in the shop can be difficult to manage if you are not proficient at using them. Hence, some basic rules should be followed by all Company employees. If you are a metal worker, even you might find something useful.

### **Areas of Concern for Metal Fabrication Projects:**

Before proceeding with safety tips for metal fabrication projects, here is a list of injuries, which can occur if proper safety measures are not taken:

- **Injuries from Material Handling:** Improper material handling is one of the main causes of injury in a workshop. Most of these injuries lead to musculoskeletal problems, which can range from minor sprains to vertebral disc injuries. These injuries result due to ignorance of proper lifting practices, avoiding established lifting protocols, poor posture, etc.
- **Injuries from Hand Tools Usage:** Various types of hand tools are used in metal fabrication projects to give finishing touches. There are various reasons for injuries from hand tools such as improper tools for the project, poor maintenance of tools, excessive use of tools, and inappropriate design of work area. For instance, a welder may be exposed to toxic substances or carbon monoxide if there is poor ventilation in the welding area.
- **Injuries from Poor Barriers:** Usually, the areas where metal fabrication projects take place are specially designed to avoid injuries. The area is closely protected with various types of barriers. Poor barrier protection is a major reason for injuries. For instance, various guarding mechanisms are adopted to protect a worker's finger from getting entrapped in the machine. If these guarding barriers are not properly installed, there is a potential for a worker to lose a finger, or the hand.

### **Safety Tips When Fabricating Metal Components/ Instruments**

The following steps can be employed when using metal fabrication tools:

- **Proper Training:** This is a very important step in any industrial setting. Innovations Manufacturing provides detailed training modules regarding the equipment, occupational hazards, and working conditions present in Company operations.
- **Inspecting Tools:** This is necessary before starting the project. The tools should be checked for malfunctioning and inspected to ensure that they are in good working condition. This is because you will use various types of manual or hand operated tools.
- **Precaution:** Attention is the key to a successful and injury-free metal fabrication. Large machines are used during metal fabrication projects. It is very important for you to take some precautions before you start working. Workers that are required to push and pull metal extrusions into a machine should avoid wearing loose clothes, or loose jewelry. You should always wear protective gloves when handling metal.
- **Tool Usage:** When using hand tools or presses, it is important to maintain the right amount of security. Presses and other large machinery are equipped with guards and other safety features. Ensure that you are well versed with these features and utilize them regularly.
- **Handling Products:** This point encompasses handling raw materials, tools, and finished products. You can utilize the right material handling equipment to transport big or heavy products.
- **Protective Clothing and Equipment:** Any person handling metal fabrication tools or extrusions should be equipped with safety gear. Safety glasses and hearing protection are required in the shop at all times with no exception. Some other safety equipment may include PPE such as hard hats, goggles, face shields, welding helmets, welding gloves, long sleeve shirts, and safety shoes. Make sure that when working or handling any product, your back and neck are supported adequately. An injury to the back could result in long term pain. You must protect yourself from possible injuries.

Management holds safety as a core value here at Innovations Manufacturing and we expect every employee to follow three key elements of performing a job safely:

- Always have a plan, tat
- Identifies and eliminates the hazards, and
- Stop if something isn't right

If we do these things well all the time, we should be able to prevent our work from becoming an injury.