



SafetyAlert

We're Serious About Safety

Computerized Numeric Control (CNC) Machine Safety

Machining and CNC machining all have the inherent dangers associated with rapidly moving parts, sharp edges, and projectile objects. However, you can mitigate and minimize many of these dangers by giving some thought to your actions and following the safety rules. The use of CNC machines requires at least the same precautions as with conventional machine tools including eye protection, standard setup procedures, and operation.

Hazards of CNC Machines

Basic mechanical motions and actions can potentially be hazardous when operating any type of machinery. With CNC machines you can look at four main mechanical components and actions that could cause crushing and/or amputation hazards:

1. Point of operation
2. Power transmission apparatuses
3. Other moving parts
4. In-running nip points

There should also be a heightened awareness when performing routine activities that pose an increased risk of severe injury to employees. These hazardous tasks will put the employees in the danger zone where there is greater potential for an accident to occur:

- Machine setup
- Clearing jams
- Machine adjustments
- Cleaning of machine
- Lubricating of machine parts
- Scheduled and unscheduled maintenance



General Safety Guidelines

Below are some general CNC machine safety guidelines that should be followed. Always refer to your company safety policies and procedures for additional safety requirements.

DO:

- ☐ Read the operator and maintenance manuals and read all warnings on the machine before turning it on.
- ☐ Know the function of each control switch and safety mechanisms before starting operation.
- ☐ Make sure that all guards are in position while the machine is in operation.
- ☐ Let the machine and spindle come to a complete stop before touching parts, tools or spindle.
- ☐ Know where the emergency STOP button is located.
- ☐ Keep the area around the machine clear from obstacles.
- ☐ Wear your safety glasses anytime you are operating or are around any machines, even if the machine is fully enclosed.

DON'T

- ☐ Do not run the machine with electrical cabinets or safety enclosure doors open.
- ☐ Do not use compressed air to blow chips from the spindle and table machine surfaces, cabinets, controls, or the floor around the machine.
- ☐ Do not perform maintenance or clean the machine without de-energizing and locking out the main electrical panel.
- ☐ Do not try to replace, add or change tools while machine is running.
- ☐ Do not wear neckties, wristwatches, jewelry or other hanging accessory when operating the machine. Long sleeve shirts should be rolled above the elbows. Long hair should be tied back.
- ☐ Do not allow employees who have not received training on the machine to use it.
- ☐ Do not let others distract you from your work. Your concentration is critical when setting up and operating the machine.



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