

VERSABULLT ROBOTICS

Mill Automation System Read Me First

# Safety Warnings

**DANGER:** VersaBuilt makes industrial machine tool automation components designed to be operated by trained personnel only. Machine tool automation components may move suddenly and without warning. Serious or fatal crushing injuries can occur from contact with the robot, gripper or vises.

Before deploying VersaBuilt industrial machine tool automation components, a safety risk assessment must be completed in accordance with local, state and/or federal requirements.

VersaBuilt industrial machine tool automation components should only be used by trained operators.

Read and understand the VersaBuilt Mill Automation Kit Safety Manual before proceeding

#### Thank You for Your Purchase



Thank you for purchasing the VersaBuilt Mill Automation System. The Mill Automation System is a tool for loading and unloading parts to your CNC milling machine. Like many tools used in manufacturing, it requires training to use safely and effectively.

When used by people with the proper training, the Mill Automation System is a tool that will provide many years of service and greatly increase the productivity of the people and CNC equipment the it serves.

# **Two-Step Installation Process**



#### **Two-Step Installation Process**

Successful automation typically does not happen on the first try. CNC automation requires two separate processes to function properly for success: the automation process and the CNC process. What many new automation users fail to realize is the steps and discovery required to make a CNC process that supports the automation process.

VersaBuilt recommends a two-step Mill Automation System installation process. In the first step, the vises and hand-valves are installed but the rest of the system and the robot remain in boxes.

During the first step, the MultiGrip workholding is proven to make good parts via hand-loading. Operators are given strict instructions on how to load the parts and observe the process for possible problems during automated processing. Problems observed are addressed before the automation is added to the equation.



The manuals included in the Mill Automation System are targeted at three distinct users of the Mill Automation System: the installer, the machinist and the operator. In some applications, one person may fill all three roles and in other applications, there may be one or two people performing the installation, two or three machinists adding parts to the system and a dozen or more operators that use the Mill Automation System.

#### **All Users Must Read the Safety Manual**

All users must read and understand the Safety Manual before installing or using the Mill Automation System.





#### Installer

The installer(s) of the Mill Automation System should start by reading the Safety Manual, then the Operator Manual to become familiar with accessing and using the VersaBuilt System Controller.

When ready to begin the installation, read the Mill Automation System Installation Guide, the Robot Installation, Configuration and Operation manual and the VersaBuilt System Controller CNC Installation and Programming Manual.









#### **Machinist**

Machinists responsible for creating the MultiGrip workholding and CNC process should start with the Machinist Manual to become familiar with designing MultiGrip workholding and the fundamentals of CNC and automation process development.

Next the Machinists should become familiar with the VersaBuilt System Controller CNC Installation and Programming manual to understand how milling programs interact with the Mill Automation System.

Finally, Machinists should read the Operator's Manual and Robot Installation, Configuration and Operation manuals to become familiar with how to configure new parts in the VSC and use the VSC to validate the automation process.









#### **Operator**

Operators responsible for running and maintaining the Mill Automation System in production should start with the Operator's Manual and then read the Robot Installation, Configuration and Operator manual that matches the robot installed in the system to become familiar with running the system and using the VSC.

