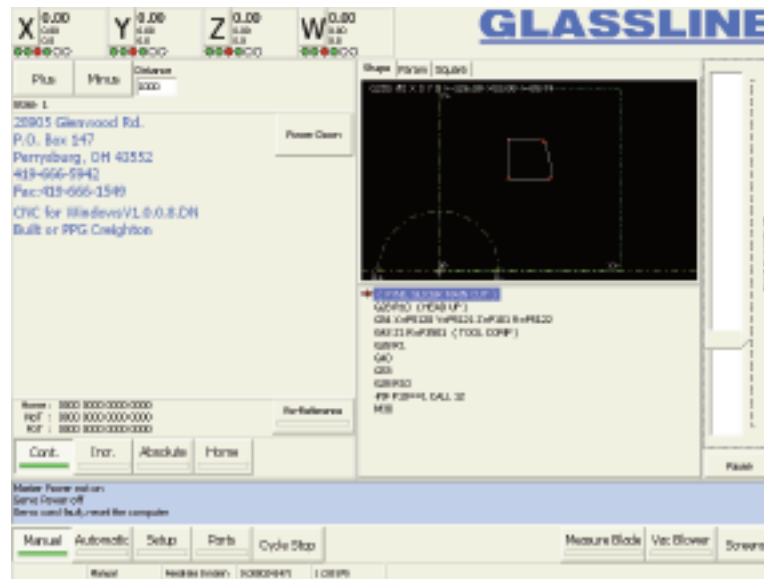


PC Based CNC Controls - Windows XP OS



CNC Control System – Operator-friendly flat panel color touch screen

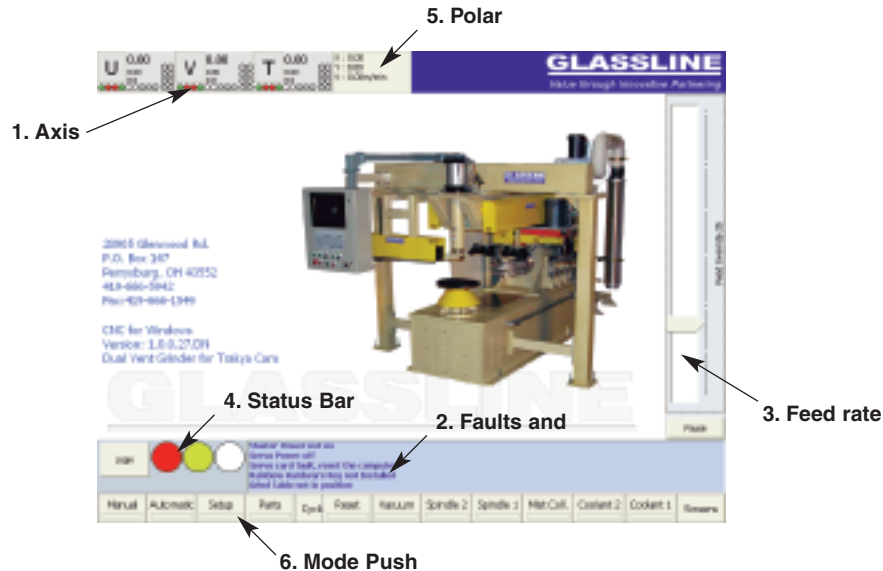
Glassline CNC Systems include our “point and click” PC-based interface with Windows XP OS technology. The flat panel color touch screen system is easy to operate and includes:

- ▶ Optimized interface for easy operation by non-CNC personal – typical factory worker
- ▶ Graphical Shape Display & NC Code Display
- ▶ Standard G Code programming
- ▶ Built-In Laser Referencing (patented) Screen
- ▶ Multiple Operation Modes – Manual, Automatic, Setup, and File Management
- ▶ Manual Modes – Jog, Incremental, Absolute and Home
- ▶ File Management Screen - 255 files can be loaded into NC (unlimited on hard drive)
- ▶ Streamlined Screens – Engineering & Operator screens separated and password protected
- ▶ Optimized Engineering Screens “Auto Calibration Features”
- ▶ Built-In Multi-pass Grind / Polish Programs and Features
- ▶ Advanced interpolation functions such as dual head polar mode and velocity look ahead
- ▶ 250 point contour block buffer
- ▶ PLC communication with KepWare or DeviceNet, which supports a large variety of PLCs

Our Windows CNC Controller is an industrial PC running Microsoft Windows XP. Some specialized hardware and software are required for controlling the CNC (specifications follow). The computer controls the servos, and IO is controlled by a PLC. The PLC and PC communicate with each other to coordinate motion and other functions.

Operator Panel

The Operator Panel consists of a touch screen, a keyboard, and some panel mounted switches and push buttons. Each item is detailed below.



Touch Screen

The touch screen is used like a mouse in windows. Touching the screen is just like pointing and clicking. The CNC software has a variety of screen components. They include edit boxes, push buttons, tab sheets, and some editors. Edit boxes use the keyboard to set the value. Push buttons are used just by clicking on them. Tab sheets are used to organize data into common areas. Clicking on a tab will display the information on that sheet.

Calculator Feature

Double clicking and Edit box will display the unique Glassline calculator on the screen. This calculator allows users to enter math, addition, subtraction, division, multiplication, raise to the power, sin, cos, tan, arcsin, arccos, arctan – not the typical popup number pad for data entry.



Hardware Requirements:

The following includes the standard hardware utilized in CNC Controllers. Consult the electrical drawings supplied with the machine purchased for the exact controller hardware used for your machine.

- ▶ Pentium based CPU
- ▶ 128MB Ram
- ▶ 20 GB Hard Drive
- ▶ 1024 x 768 VGA
- ▶ Precision Micro Control servo controller card (exact version varies by machine type)
- ▶ PLC communications interface through KepWare or DeviceNet
- ▶ Touch Screen – typically ELO touch screen
- ▶ Rainbow Sentinel parallel security device

Software Requirements:

- ▶ Microsoft Windows XP professional
- ▶ Precision Micro Control Motion Control API (latest revision)
- ▶ Sycon System Software for DeviceNet or KepServerEx
- ▶ ELO Touch Screen drivers
- ▶ Rainbow Sentinel device driver
- ▶ Glassline CNC directory with Windows CNC files

GLASSLINE

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