

1 Technical Description

1.1 Grinder System Overview

The Huffman HS-195R Five Axis Grinder System, with a large 16" x 16" x 16" work envelope, is designed for grinding a wide variety of tools and parts of up to 12" (304.80mm) in length and 12" (304.80mm) in diameter, depending upon part configuration.

The Huffman HS-195R provides five axes of full-computerized control. A sixth axis (U) is manually positioned. Three of these axes are linear and two are rotary, all with standard axis nomenclature. The positioning system and work area are totally enclosed. All CNC linear slides are driven by precision ground and preloaded recirculating ball screws. All CNC guideways (linear rails) are precision ground solid bars with preloaded ball bearings. An automatic lubrication system provides lubricant to the ball screw nuts, linear ball bearings and counterweight sprockets. Motor encoder feedback is standard on all axes.

The CNC positioning system consists of three (3) linear (X, Y and Z) and two (2) rotary (A and C). The X and Y axes are mounted to the machine base. The Z axis is mounted to the Y axis slide, and supports the spindle assembly. The C-Axis is mounted to the X-Axis slide, and the manual U-Axis is attached to the C-Axis rotary table. The A-Axis is mounted to the manual U-Axis.

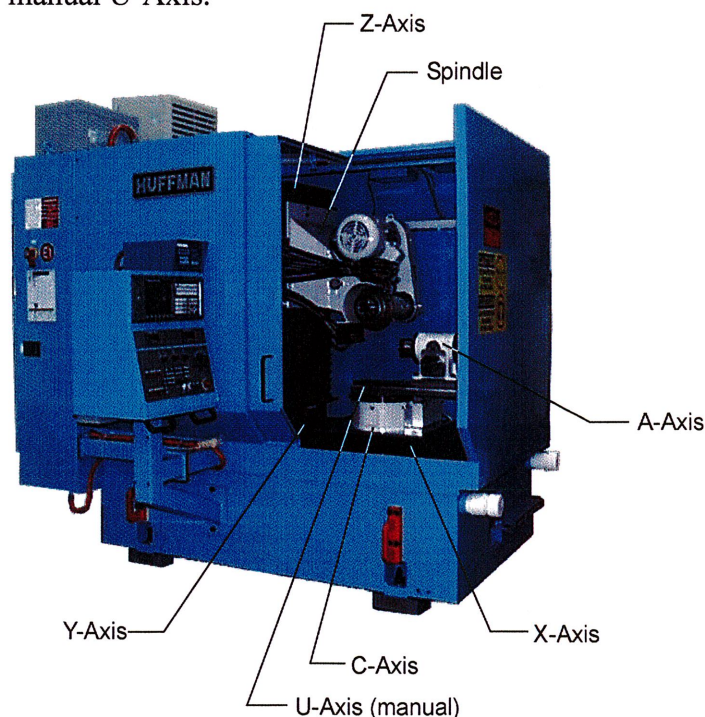


Figure 1-1 Axis Locations