

THE VICTOR LASER CALIBRATION ADVANTAGE



Victor 1860DCL X-Axis Laser Calibration Setup

The two charts to the right are final positional error maps for a typical Victor Digital Control Lathe. The top chart shows the X-axis positional error is below ± 0.0001 " (in radius) across the entire 20" of diameter travel. The bottom chart shows the Z-axis positional error is within ± 0.0002 " across the entire 50" of travel.

This level of accuracy is unheard of on a flat-bed type CNC lathe in this price range. Most manufacturers only claim that they can hold a certain level of accuracy over a limited distance. (i.e. ± 0.0004 " for every 6" of travel) However because of our laser generated positional error mapping, we are able to maintain the accuracy guarantee over the entire travel of the machine.

When you make an investment in a CNC machine, you should feel confident that the machine will give you years and years of accurate productivity. However inevitably in all mechanical systems, there will be some level of "wear" that will affect the machine's ability to maintain the original accuracy. On the Victor Digital Control Lathe, this problem is solved by allowing the machine's accuracy to be re-calibrated. The machine's movement would simply be re-mapped to generate a new positional error map. This map would then be used to create a new software calibration curve. After this new calibration curve is applied, your Digital Control Lathe will regain much if not all of its previous accuracy characteristics. This re-calibration feature serves to extend the life of your Digital Control Lathe, so that you can be assured of many years of productivity from your precious investment.

For more information on these machines please contact your local dealer or for a dealer near you call:

VICTOR MACHINES A Leading Worldwide Machine Tool Supplier
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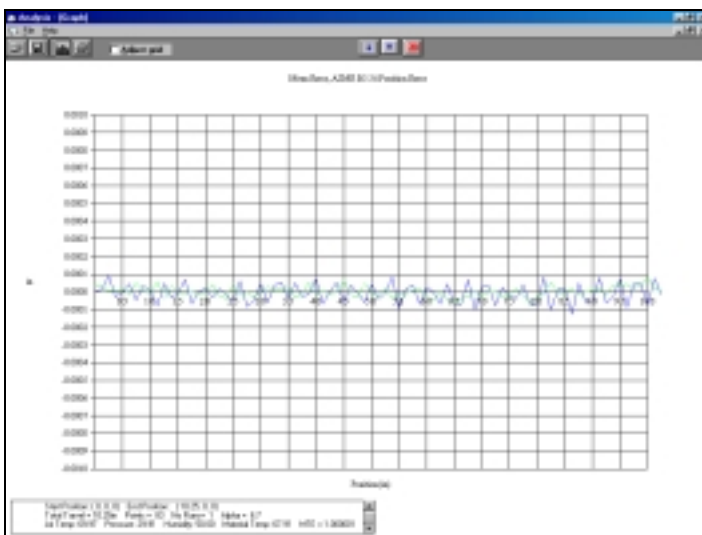
Victor puts great effort into building machines that are considered by some to be the most accurate in the industry. Every Victor Digital Control Lathe is measured with the latest in Laser Calibration technology to verify that each machine is able to maintain its accuracy guarantee. Every machine is "mapped" out using a state of the art laser system to create a positional error map for the entire machine. Using this map, we generate a sophisticated software calibration curve and apply it to the CNC to make the machine's positional accuracy "perfect". No portion of the accuracy of our machine is left to guess work.

The industry accepted accuracy on these machines is:

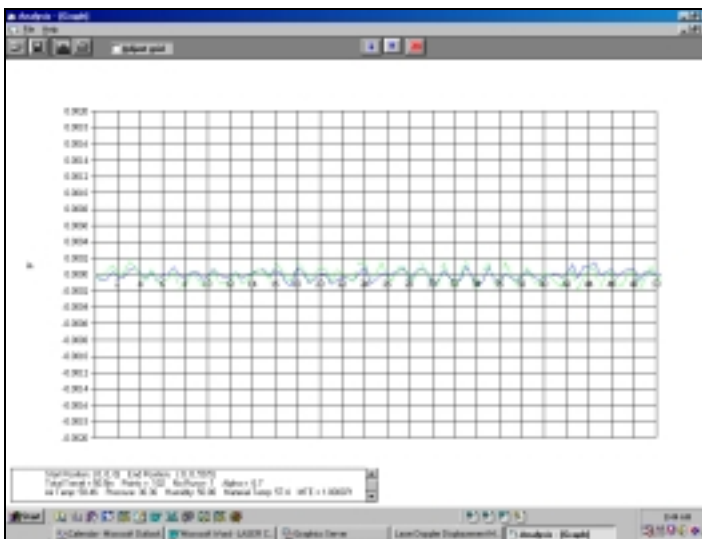
X= ± 0.0004 " Z= ± 0.0007 "
 (per VDI/GQ-3441)

Our achieved* accuracy on the Victor DCL after calibration is:

X= ± 0.0001 " (on radius) Z= ± 0.0002 "



Laser Calibration Result for X-Axis (Across 20" of diameter travel)



Laser Calibration Result for Z-Axis (Across 50" of travel)

* These results show possible accuracy only. Actual accuracy guarantee for 1800DCL** is: Accuracy X= ± 0.0004 " (dia.) Z= ± 0.0004 "
 Repeatability X= ± 0.0002 " (dia.) Z= ± 0.0002 "

** Accuracy guarantee varies depending on the size of the machine. Please contact us for more detailed information.