

ABSOLUTE MACHINE TOOLS

Absolute Service



Headquarters-Lorain, Ohio

Absolute helps machine shops and manufacturing facilities improve their production processes to be more competitive in a tough global environment. The company has built its reputation on unsurpassed applications engineering service and support, comprehensive training, and innovative preventive-maintenance programs.

Absolute believes that finding the right machine tool partner is just as critical to the metal cutting process as securing the right machine. Machine tool suppliers should help companies engineer solutions that deliver outstanding and consistent results for their applications.

Ready for a one-stop source for all your machining needs? Absolute packages its applications service and support into a solutions package for our customers. For example, we work closely with tooling companies and software developers to ensure that tooling and software truly optimize machine performance.

We also support our customers beyond the initial sale by developing one of the most innovative Preventative Maintenance Programs (PMP) in the industry. This program allows us to actually increase the productivity of our customers' machines by increasing output efficiency, uptime, and profit margins while avoiding expensive repairs and costly downtime.

Contact Absolute Machine Tools at 800-852-7825 or email service@absolutemachine.com to learn how our comprehensive applications engineering and service support can help you boost productivity and cut costs!



Technical Center-Mason, Ohio



Sales Office & Showroom-Livonia, Michigan



Technical Center-Elgin, Illinois

High Speed Machining Programs

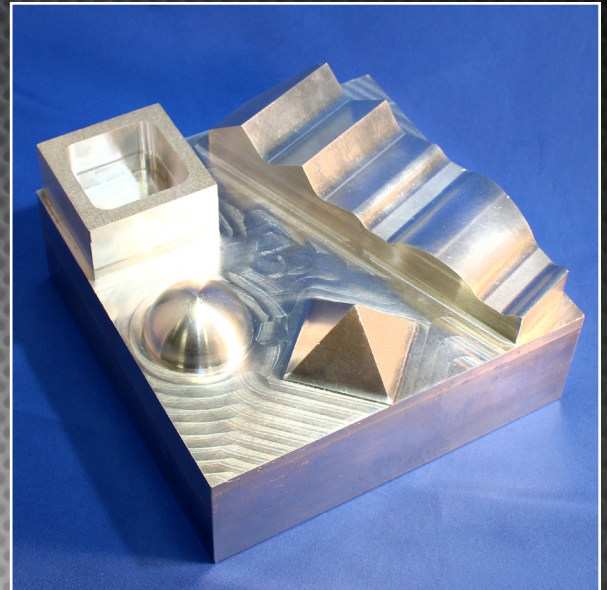
SERVO TUNING PROGRAM

Fine-tune your HSM center for precision and speed! Servo tuning is an important control issue that affects the performance of a machining center in high speed applications. Basic servo tuning can bring about a significant increase in machine performance by switching servo gains and other parameters based on an end user's tolerance and finish requirements.

Most servo tuning is experience based and very few people can do it. Absolute's highly skilled technicians work with hundreds of parameters. They examine both servo motors and CNCs and study the results. We use a ball bar or laser to measure a specific qualitative result and fine tune that result to match the response of the servo motors in a perfect environment.

Absolute servo tunes each of its Johnford Hi-Net mold/die machines on the customer's floor during installation. This ensures the end user gets a machine that performs to their expectations immediately.

Want to learn more about servo tuning? Ask Absolute and we'll show you how servo tuning reduces cycle times, improves finishes and yields a high quality product. Your machine will be optimized to your applications and specific needs. Save money and be more competitive with servo tuning!

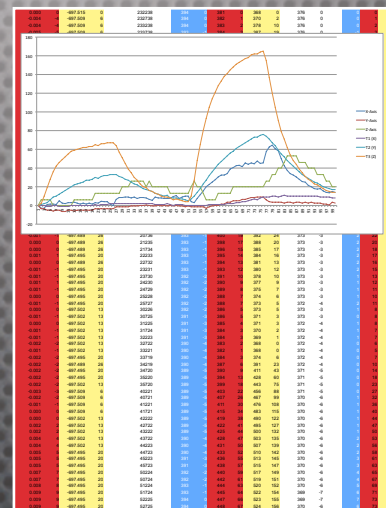


THERMAL COMPENSATION

Ensure parts are machined to tight tolerances with high repeatability! Heat produced by machine tool spindle axis drive systems and the cutting process can distort machine components and make it difficult to produce accurate parts. Spindle growth is of particular concern in the mold/die industry, where tolerances are especially tight.

Absolute employs temperature mapping techniques to measure thermal growth in the axis of its Johnford Hi-Net machining centers. Temperature sensors mounted on a machine casting and spindle head send dynamic data to the CNC, where it is processed on-the-fly. The control calculates the thermal deviation using factory-developed algorithms and feeds new offsets to the relevant machine axis.

Thermal compensation on our Johnford Hi-Net machines gives you real-time monitoring and feedback of temperature changes. You'll be able to minimize thermal distortion to produce better parts immediately. Find out how thermal compensation can give you the competitive edge!



Thermal compensation systems automatically adjust to thermal changes in a HSM center's X, Y, or Z axis based on a thermal-growth map of the machine developed prior to machining. The system develops a profile of anticipated spindle growth as a function of spindle speed and length of time of operation and automatically compensates for thermal distortion on-the-fly.

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