

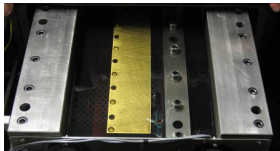
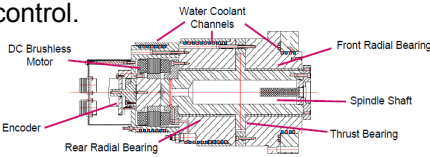
News Bulletin September 2011

Thermal Management...

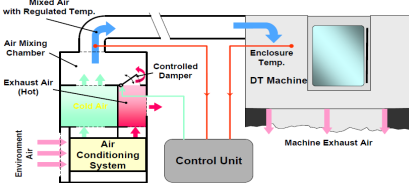
The thermal stability of any Ultra-Precision machining system has a direct influence on individual part accuracy. Most notably surface form and absolute dimensional accuracy is affected, in addition to part-to-part consistency within a production run.

Moore Nanotech® addresses this challenge from two primary directions. First and foremost, we design our machining systems to be as thermally insensitive as possible, allowing them to be used readily in most all customer environments. Then we provide further thermal control options where the most demanding accuracy is required, or where the customer's environment lacks fundamental thermal control.

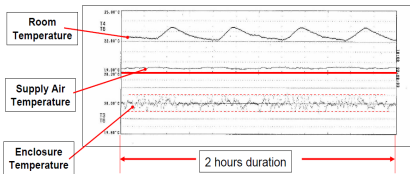
Liquid cooling is used around the motor and bearing in both our work spindle and micro-milling spindles, coupled with materials used throughout the machine structure which are carefully selected for optimised thermal stability. Certain machines also feature slide systems where the bearing and linear drive motor are completely immersed in the hydrostatic bearings oil, yielding unparalleled thermal stability.



For those applications where the ultimate thermal control is required, or as an alternative to costly 'facility' air conditioning systems, Nanotech® offers a Temperature Controlled Air Shower system. This provides a constant temperature within the machine enclosure, typically an order of magnitude more stable than the room environment in which it is placed. The system is ideally suited to service an individual Nanotech® machining system, however a two-machine set up is possible, providing a Master control to one and the Slave control to the other.



NanoTEMP provides further monitoring of the machining system and the environment's thermal behaviour. Its multi channel input and extensive selection of thermal sensors allows for surface, air, and liquid temperatures to be measured and subsequently recorded.



Applications Support...

Moore Nanotech® employees enter our facility each day with a clear and visible reminder of what drives us forward as a company... The applications of our customers.

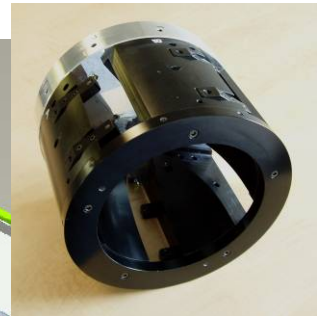
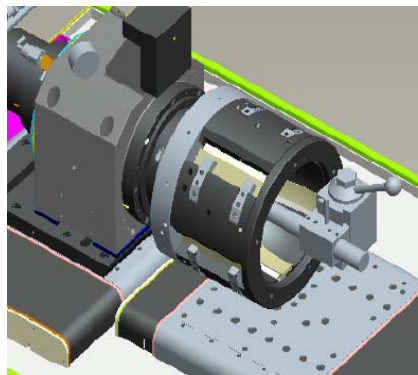


Our Applications Laboratory is equipped with not only the very latest Nanotech® machining systems, but also a full suite of Metrology instrumentation and a healthy stock of diamond cutting tools and grinding wheels.

With three multi-disciplined Applications Engineers on hand, Nanotech® is able to provide both a re-active capability to satisfy specific customer requirements and a more pro-active capability

to develop new machining strategies, driven by advanced materials, tools, and programming techniques.

We for example advise our customers on matters such as part fixturing and tooling, an illustration of which is below. Taking the customer requirement from concept to execution is part of the value-added-service that we are able, and indeed expect, to provide.



Courtesy of:
Symons Mirror Technology
www.smt.qb.com

For more information on how we can support you, whether an existing Nanotech® machine user, or if you're simply considering such an investment, please feel free to contact your local Nanotech® sales representative.

Some useful contacts...

- Bob Cassin - Sales & Applications Manager
- Jeff Perra - North America Sales Engineer
- Jeff Johnson - Applications Engineer
- Steffen Schneider - Applications Engineer
- Taylor Stewart - Applications Engineer

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Next Issue: What Our Customers Say About Us...

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