

# Cleanroom Preparation

Aerotech has a long history of providing components and systems to the semiconductor and medical device manufacturing industries. This experience has provided extensive knowledge of how to prepare stages for cleanroom use. The following provides details about Aerotech's "Best Practices" cleanroom technique:

In general terms, Aerotech does the following:

1. Use cleanroom compatible lubricants (NSK LGU grease, THK AFE-CA, etc.).
2. Use cleanroom compatible cable management systems. Little or no use of plastic cable-carrier-style cable management.
3. Use stainless-steel hardware.
4. Stage surfaces are either anodized or painted.
5. System is fully wiped-down prior to shipment and is packaged using cleanroom compatible bags.

Aerotech does not use stage sealing belts or other devices that are known to actively generate particulates.

The manufacturing process for cleanroom-compatible systems incorporates the following:

1. All component-level machine parts are cleaned ultrasonically or with a lint-free cloth and reagent grade isopropyl alcohol (IPA).
2. All blind holes are wiped or flushed with reagent grade IPA.
3. Parts are dried using pressurized nitrogen. Compressed air is not used.
4. All granite surfaces are cleaned with special granite cleaner that is specified by the manufacturer for this purpose.
5. After final assembly the entire mechanical system is blown off with filtered, dry nitrogen and wiped down with reagent grade IPA.
6. The system is then double-bagged with nitrogen purge.

Please note that the final system cleanliness level will depend on customer handling procedures, system air management methods, etc.

## Advanced Manufacturing Facilities

In order to address the increased demand for super-clean motion systems, Aerotech expanded its cleanroom facilities

to include large system ISO 14644-1 Class 6 (Federal Standard 209E Class 1000) and cell specific ISO Class 5 (Class 100) capabilities. The large active area includes pre-/post-dressing areas, dedicated product transfer, and large main product assembly areas.



This clean-room expansion project is just another example of Aerotech's commitment to our customers and their needs. We will continue to advance our capabilities to meet and exceed future customer requirements.



In addition to our cleanroom capabilities, we have constructed dedicated laboratories for our motion control research and development efforts. Each of these laboratories is outfitted with the latest equipment and resources to provide the perfect environment for cutting-edge motion research. This research will continue to make Aerotech products the highest performance motion components and systems available.

