



Contamination Control and Minienvironment Consulting Services

www.bartlettbayconsulting.com

1. SKILLS:

- Understands and Implements Proper Design Analysis:
 - Found and fixed problems before testing begins
 - o consulted on many minienvironment design projects
 - o designed and built the first integrated minienvironment for 300mm technology

- Understands Basic Contamination Control Constructs:
 - Designed and built minienvironments and cleanrooms to insure highest possible levels of particle control
 - o Designed minienvironments which have shown the state-of-the-art contamination control levels at the best ISO standard levels

- Design, testing, certification, and auditing of cleanrooms and minienvironments to insure all potential contamination problem areas were captured

- Provided both customer and suppliers an in-depth analysis of contamination control problems and solutions

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2. KNOWLEDGE:

- Understands the physics of Contamination Control Measurement Parameters:
 - Uses state of the art measurement techniques and statistical analysis methods to provide comprehensive analysis of minienvironment/cleanroom

- Understands how to interpret Airflow visualization (fogging with DI water mist) data:
 - Extensive use this technique enables a qualitative analysis of the airflow design within the minienvironment/cleanroom
 - o detects problem areas such as turbulence and vortices which are known to produce particle generation

- Understands the parameters involved with Differential Pressure measurements:
 - This important measurement technique provides key information regarding contamination control parameters analysis of pressure levels is especially important for minienvironments used in a bay-chase configuration

- Understands the parameters involved with Air-flow Velocity measurements:
 - This critical element needs to be adjusted to insure adequate differential pressure but also to insure flow laminarity over the entire region

- Understands the parameters involved with airborne and on-wafer (PWP) Particle measurements:
 - These measurements are the de-facto standards for insuring the cleanliness of an environment;
 - to insure data is statistically correct involves knowledge of industry standards (ISO, ITRS, etc.)
 - Bartlett Bay Consulting has extensive experience measuring airborne and PWP