

# **Mini-Environments**

#### **CMP PROCESS CONTROL:**

The CMP Guard 2000 improves throughput and yield by preventing contamination defects from both ambient and process sources and by reducing downtime required to clean dried and hardened slurry. The patented hollow panel exhaust system uniformly controls the laminar air supply throughout the processing chamber.

The automated exhaust system provides personnel protection from process chemicals and prevents cross contamination of other processing equipment. The result is a robust enclosure system which supports manufacturing in cleanroom conditions ranging from class 100,000 to class 1.





## SEMICONDUCTOR RETROFIT SOLUTIONS:

The iEAir Valu-Guard Enclosure System is engineered as a low cost contamination control solution for cleanroom retro-fit applications, equipment upgrades, and Ultra-Clean Input/Output stations. The Valu-Guard isolation system is ideal for enclosing product load/unload stations for any semiconductor and CD manufacturing equipment. Options include bag-in bag-out product transfer stations, glove port access, static charge control, wheels, and a wide range of finishing materials. The system is capable of operating at Class M1 in environments ranging from Class 100,000 to Class 1. Each system is ergonomically optimized and meets MIL-STD-1472D Human Engineering Guide to Equipment Design.



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## STOCKERS:

The MIx-Flow Enclosure System provides a class M1 and better environment to protect sensitive reticles and bare wafers in semiconductor manufacturing. Isolation performance is accomplished through a unique combination of patented laminar horizontal and vertical air flow and filtration. 100% ULPA filter coverage of the enclosure walls and ceiling provide turbulence free air control at minimal air velocity to product storage shelves. Each filter is individually adjustable with integrated dampers for precision air flow control throughout the environment. The system operates with either facility provided air or an independent blower and has been optimized for the smallest footprint at the lowest air supply pressure requirement.. The Mix-Flow Stocker Enclosure System is ideal for use with bare wafers, reticles, and other sensitive devices requiring ultra-clean long and short term storage.



## WET PROCESS ENCLOSURES:

The Chem-Guard 2000 reduces cost of ownership by 62% over standard systems by reducing the amount of scrubbed exhaust. The combination of a proprietary ULPA filtration system, unrivaled air flow management, and automated exhaust controls result in industry leading performance with less than 0.02 PWP and no addition of molecular contamination to the ambient environment. The patented hollow panel exhaust system uniformly controls the laminar air supply throughout the processing chamber. The exhaust system provides personnel protection from process chemicals and prevents cross contamination of other processing equipment. The result is a robust enclosure system which supports manufacturing in cleanroom conditions ranging from class 100,000 to class 1.



The Chem-Guard 2000 also features an optional automated exhaust system to provide maximum exhaust control and personnel protection. The automated exhaust system eliminates the effects of fluctuations in house exhaust systems and cleanroom pressure.